SITE PLAN REVIEW APPLICATION (SP-2022-05)

JAX LOT B ACCESS PROJECT



0232695.03 The Jackson Laboratory Bar Harbor, ME

woodardcurran.com

May 12, 2022

May 12, 2022



Michele Gagnon Town of Bar Harbor 93 Cottage Street Bar Harbor, ME 04609

Re: JAX Lot B Access Project

Site Plan Review Application #SP-2022-05

Dear Michele:

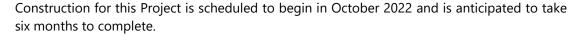
Please find enclosed the submittal package for review of the Lot B Access Project by The Jackson Laboratory (JAX). We respectfully request that you review the enclosed application and that it be considered for Completeness Review at the Planning Board's meeting on June 1st, 2022.

A payment in the amount of \$2,282 for the Site Plan Review fee has been provided separately.

JAX has been working to improve the safety of employees around the Bar Harbor campus. In Fall 2020, JAX upgraded the Route 3 crosswalk from Parking Lot B to the JAX campus by working with the Town of Bar Harbor to install Rectangular Rapid Flashing Beacons (RRFBs), new pedestrian crossing signs, and dynamic speed feedback signs on the approaches to the crossing. In 2021, JAX augmented this pedestrian crossing safety with further safety measures including the separation of the walking path from driveway entrance in parking Lot B, the removal of a separate right-turn exit lane from Lot B, and the installation of additional lighting and traffic delineator posts.

JAX is now proposing to relocate the existing driveway access to their parking Lot B located on the west side of Main Street (Route 3) in Bar Harbor. This relocation will separate the pedestrian traffic access crossing Route 3 from the main vehicular traffic entering and leaving the parking lot improving pedestrian safety. The proposed access driveway is located approximately 250 feet north of the existing driveway. A new right turn lane on Route 3 with a raised landscaped island will be installed for southbound traffic access to the parking lot. The existing right turn lane and driveway pavement will be removed to provide additional landscaped area with sidewalk access between the parking lot and Route 3. A portion of this area will remain paved as a sidewalk to bring pedestrians from the parking area to the existing signaled Route 3 crossing. As part of the proposed Route 3 corridor safety improvements, a speed table with a raised midblock crosswalk will be installed across Route 3 in the same location as the existing crosswalk.

The proposed entrance drive is approximately 600' long, with a paved footprint area of 10,895 sf. The Project adds 0.43 ac of new impervious and eliminates 0.20 ac of pavement for a balance of 0.23 ac of impervious. The total developed area of the Project is 0.85 ac. An underdrain soil filter with peak storage capacity provides stormwater treatment for the new access drive. There will be no wetland impact from this Project.





We believe the data contained in this application provides all the information necessary for the Planning Board to find that the proposed Project meets the criteria for approval under the Town of Bar Harbor's Land Use Ordinance.

The proposed Project meets the General Review Standards, with reference to the section numbers of the Ordinance, for site plan approval as follows.

125-67 A. PERMITTED USES

The parcel is in Zone Z-Scientific Research. The proposed Project is an allowable accessory use in this zone (parking).

125-67 B. LOT STANDARDS

The proposed Project meets all lot standards for the Scientific Research zone, including the required lot setbacks.

As specified in the ordinance (125-67.B.2), front setback distances are measured from the center line of the traveled way in Scientific Research District.

The setbacks are illustrated for reference on Figure 9-1 in Exhibit 9 and the Project meets these except where it necessarily connects to the Route 3 roadway. Lot Coverage is discussed in Exhibit 9 as well; current coverage on this lot (west side of Route 3) is calculated at 11.0%. After construction, coverage will be 11.6%. The Project meets all lot standards.

125-67 C. HEIGHT

The proposed Project is not a building so there is no applicable height standard.

125-67 D. PARKING REQUIREMENTS

The Project will slightly reconfigure some parking spaces in Lot B with a net loss of three spaces overall. The Lab currently has 1,415 employees and, as shown on the parking counts table attached in Exhibit 12, there will be 974 spaces available for employee parking. Applying the ordinance standard of one space per every 1.5 employees, the available parking is sufficient for as many as 1,461 employees. Therefore, the Project meets the parking requirement.

125-67 E. PARKING AREAS AND DRIVEWAYS

The first 50' of the driveway off of Route 3 is graded to 4%, which meets the ordinance standard that the first 25' of a driveway does not exceed a 5% grade. As shown on the proposed driveway profile, the maximum grade is 8%, less than the maximum allowable of 15%.

The sight distance from the driveway exceeds the MDOT standard of 305' for a road posted at 35 mph. The actual sight distance is to the north exceeds 600 feet, and to the south is approximately 350 feet. Therefore, the proposed Lot B entrance provides satisfactory sight distance.

125-67 F. LOADING REQUIREMENTS



There is no need for loading areas at Lot B.

125-67 G. STREETS, SIDEWALKS, AND ACCESS

A new sidewalk will be constructed to provide access to the existing designated pedestrian crossing of Route 3 at the south end of Lot B. The purpose of the proposed Project is to increase safety for pedestrians crossing Route 3 by separate vehicular and pedestrian movements in and out of Lot B.

125-67 H. BUFFERING AND SCREENING

The small amount of new pavement proposed to allow for reconfiguration of the parking spaces at the south end of Lot B is outside of the 100' setback from Route 3 (measured from the centerline) so no buffering or screening is required. The area where pavement is removed to build the sidewalk will be loamed and seeded.

125-67 I. WATER SUPPLY

The proposed Project will not connect to the Town's water supply.

125-67 J. MUNICIPAL WATER SUPPLY

There is no water supply connection proposed.

125-67 K. GROUNDWATER

There will be no groundwater use and no impact to the quality of groundwater in the vicinity of the proposed Project.

125-67 L. STORMWATER MANAGEMENT

Stormwater management for the proposed Project has been incorporated into the design and will be reviewed by Maine DEP for compliance with the state standards in Chapter 500 and the Maine Stormwater Best Management Practices (BMPs).

The Project will utilize an underdrained soil filter, a standard Maine DEP BMP, to manage stormwater quality and quantity for the proposed Project. Erosion and sedimentation will be adequately controlled.

125-67 M. MUNICIPAL SEWER FACILITIES

The proposed Project will not connect to the Town's sewer system.

125-67 N. SEWAGE DISPOSAL

There will be no sewer flow from the proposed Project.

125-67 O. SOILS



The proposed Project will not impact any area where the soil is rated severe or very severe by the County Soil Survey of the USDA Soil Conservation Service. A soil survey map is provided in Exhibit 10.

125-67 P. LANDSCAPING

No landscaping is required for this Project site. Beyond site restoration, any landscaping that is ultimately provided will be consistent with the planting aesthetics for the rest of the campus.

125-67 Q. EROSION

Adequate erosion and sedimentation control will be provided. The measures to be utilized are discussed in Exhibit 17.

125-67 R. FLOOD PERMIT

The proposed Project is not in the flood zone, and no flood permitting is required.

125-67 S. AIR QUALITY

The proposed Project will not impact air quality, and no permit is required. There will be no emissions of dust, smoke, ash, odors, gases, chemicals, or other particulate matter from the proposed Project.

125-67 T. REFUSE DISPOSAL

The proposed Project is a driveway and will not generate solid waste.

125-67 U. DANGEROUS OR HAZARDOUS MATERIALS AND WASTES

The proposed Project will not generate any hazardous waste.

125-67 V. VIBRATION

The proposed Project will not generate excessive vibration.

125-67 W. WILDLIFE HABITAT

Inland Fish & Wildlife staff were asked to review the JAX properties again in early 2020 because it had been several years since their last file review. The correspondence is included in Exhibit 9; they have no records of species of concern on the Project site or JAX properties in general. None of the habitats or species are present on the site of the proposed Project.

There are no wetlands on the proposed Project site.

125-67 X. AESTHETIC AREAS AND PHYSICAL AND VISUAL ACCESS

No aesthetic, cultural, or natural areas will be affected by the proposed Project. There will not be any change to physical or visual access to shorelines.

125-67 Y. HEAT



The proposed Project will not generate excessive heat.

125-67 Z. LIGHT AND GLARE

The proposed Project will not create excessive light or glare. New pole mounted fixtures will be installed as shown on the Lighting Plan. These fixtures are full cut-off, with a color temperature of 3000k. The manufacturers' cut sheets for the proposed fixtures are included in Exhibit 21.

125-67 AA. NOISE

The proposed Project will not generate excessive noise.

125-67 BB. SIGNS AND ADVERTISING

No new signs are proposed for this Project.

125-67 CC. OUTDOOR STORAGE AND DISPLAYS

No outdoor storage or displays are part of the proposed Project.

125-67 DD. UTILITIES

The only utility connection for the proposed Project is power for the site lighting.

125-67 EE. FIRE PROTECTION

Access to the site meets the requirements for the fire department. There is no water supply at Lot B.

125-67 FF. COMPREHENSIVE PLAN

A memo from the Bar Harbor Planning Department stating that the proposed Project is in conformance with the Town's Land Use ordinances will be provided by staff.

125-67 GG. FINANCIAL AND TECHNICAL CAPACITY

Documentation has been provided to demonstrate that JAX has the financial capacity to complete, operate, and maintain the proposed Project. Information verifying this capacity is included in Exhibit 24.

125-67 HH. FARMLAND

There is no registered farmland property within 150 feet of the proposed Project.

125-67 II. OTHER MUNICIPAL SERVICES

The proposed Project will not have a negative impact on Bar Harbor municipal services. This is discussed further in Exhibit 6.





The Applicant is not in violation of the Bar Harbor Land Use Ordinance nor is it in arrears in payment of any local taxes or assessments. Further information is included in Exhibit 2.

125-67 KK. LEGAL DOCUMENTS

The Lab holds the deed to the property upon which the proposed Project is to be constructed. A discussion of this is included in Exhibit 3. No other easements or real estate is needed for the proposed Project.

125-67 LL. HISTORIC AND ARCHAEOLOGICAL RESOURCES

The proposed Project site has not been identified by the Maine Historic Preservation Commission or the Bar Harbor Comprehensive Plan as containing historic or archaeological resources.

125-67 MM. UTILIZATION OF THE SITE

The proposed Project does not impact environmentally sensitive areas.

125-67 NN. NATURAL FEATURES

Maine Natural Areas Program staff were asked in early 2020 to review the JAX properties again because it had been several years since their last file review. The correspondence is included in Exhibit 9. They have no records of species of concern on the Project site.

We believe this application provides all the information necessary for Completeness Review. Please let us know if you have any questions or require any additional information.

Thank you for your assistance with this Project.

Sincerely,

WOODARD & CURRAN, INC.

Sarah Nicholson, P.E. Technical Manager

Enclosure

cc: John Scheckel, The Jackson Laboratory

Kelly Doran, The Jackson Laboratory

PN: 0232695.03



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125-66.A SITE PLAN APPLICATION

Exhibit 1 contains the completed Checklist and Site Plan Application on the forms provided by the Planning Department. There is no registered farmland within 150 feet of the proposed Project site.

The proposed Project is construction of a new access driveway for Lot B, the large parking lot on the west side of Route 3. The new driveway will be 250' north of the existing vehicle entrance, which will be removed.

The relevant application form is the Site Plan Application, attached. The cover letter explains how the Project meets all the applicable standards. All waiver requests are indicated on the Checklist.

Access to the site by the Bar Harbor Code Enforcement Officer is allowed by the Certification paragraph of the Site Plan Application Form.



BAR HARBOR PLANNING BOARD APPLICATION FOR SITEPLAN

(as described by Article V of the Bar Harbor Land Use Ordinance)

APPLICATION # SP - 2022 - 05					DATE May 12, 202	2
FEE \$ 2,282.	00	MAP115	LOT_	021	USE	research (accessory)
APPLICANT	` :					
Name The Jac	kson Laboratory,	c/o John Scheckel				
Address 600 M	lain Street		······································			
Bar Ha	arbor, ME 04609					
Telephone_20	7-288-6744					
Email <u>Jo</u> t	nn. Scheckel@jax	org				
OWNER:						
Name The Jac	ckson Laboratory,	c/o Kelly Doran				
Address 600 M	lain Street					
Bar Ha	arbor, ME 04609					
Telephone_20	7-288-6585					
Emailke	lly.doran@jax.or	3				
PROJECT R	EPRESENTA	TIVES:				
Name_Woodar	d & Curran, c/o S	Sarah Nicholson				
Address_80 Ex	ксhange Street, S	uite 400				
Bang	or, ME 04401					
Telephone_20	7-632-5039					
	icholson@wooda	rdcurran.com				



BAR HARBOR PLANNING BOARD APPLICATION FOR SITEPLAN

(as described by Article V of the Bar Harbor Land Use Ordinance)

Please provide a complete written summary that accurately describes the project for which you seek approval (attach additional pages if necessary):

The proposed project is construction of a relocated access driveway to JAX's parking Lot B located on the west side of Main Street (Route 3) to improve pedestrian safety. The proposed access driveway is located approximately 250 feet north of the existing driveway. A new right turn lane on Route 3 with a raised landscaped island will be installed for southbound traffic access to the parking lot. The existing right turn lane and driveway pavement will be removed. A portion of this area will remain paved as a sidewalk to bring pedestrians from the parking area to the existing signaled Route 3 crossing. A new stormwater BMP will treat runoff from the new access drive.

Anticipated completion of construction is scheduled for Spring 2023.

CERTIFICATION:

This application and all information submitted are true and correct to the best of our knowledge. If approval is granted, all work executed shall be performed in strict conformance with the approved application, conditions imposed by the Bar Harbor Planning Board and the Bar Harbor Land Use Ordinance. Permission is hereby granted to the Bar Harbor Code Enforcement Officer, or his/her designee, to enter and have access to the subject property at all times during and immediately upon completion of construction to ensure compliance with the approved application and the Bar Harbor Land Use Ordinance. Failure to grant such access shall result in the immediate issuance of a stop work order.

It is understood that no application shall be deemed pending until and unless it has been certified as complete by the Bar Harbor Planning Board, that the Planning Board shall not conduct substantive review, a review of the application to determine whether is complies with the standards set forth in the Bar Harbor Land Use Ordinance, until the application has been deemed complete. It is further understood that neither the submission or review of, nor public comments a about a pre-application sketch plan, nor the conduct of a site inspection shall be construed to be a substantive review of the proposed development.

Owner	Date
Lilly Don	May 12, 2022
Applicant	Date
	May 12, 2022

Application #: SP-2022-05 JAX Traffic
Owner/Applicant: JAX
Permit Consultants: S. Nicholson, W&C

Exhibit (E)
Waiver (W)
Staff Applicant
COMMENTS/NOTES

COMMENTS/NOTES

Project Description: The proposed project is construction of a relocated access driveway to their parking Lot B located on the west side of Main Street (Route 3). This relocation will separate the pedestrian traffic access crossing Route 3 from the main vehicular traffic entering and leaving the parking lot improving pedestrian safety.

The proposed access driveway is located approximately 250 feet north of the existing driveway. A new right turn lane on Route 3 with a raised landscaped island will be installed for southbound traffic access to the parking lot. The existing right turn lane and driveway pavement will be removed to provide additional landscaped area with sidewalk access between the parking lot and Route 3. A portion of this area will remain paved as a sidewalk to bring pedestrians from the parking area to the existing signaled Route 3 crossing.

Checklist

Zones: Scientific Research Eleemosynary Purposes

Map/Lot/Physical Address: Map 115, Lot 21/14 Woodlands Lane (large parking area on Route across from the Lab)

Lot Size: 35.6 acres, per assessing record

Allowed Use in Zone: Lab

Date/Time Pre-App: May 9 @ 2:30 PM

Department Official: MG

1. SITE PLAN APPLICATION — Refer to Land Use Ordinance §125-66 A

This document is the checklist

В	Property owner's name/address	E	Application form	
C	Applicant's name/address	E	Application form	
D	Project representatives name/address	E	Application form	
\mathbf{E}	Abutters name & address within 300 ft. of	E	Staff Provided	
	property lines			
F	Registered farmland w/in 150 ft.	\mathbf{W}	No farmland in BH	
G	Description of proposed use	E	Application form	
H	Authorization for town official access	E	Application form	
Ι	Explain how project meets standards	E	Per 125-67 A. Permitted uses; B. Lot s	standards; C. Height; D. Parking
			requirements; E. Parking areas and driveways; L. Stormwater management;	
			O. Soils; P. Landscaping; Q. Erosion; W. Wildlife Habitat; X. Aesthetic areas	
			and physical and visual access; Z. Light and glare; BB. Signs and advertising;	
			DD. Utilities; EE. Fire Protection; GG	

Application #: SP-2022-05 JAX Traffic Owner/Applicant: JAX Permit Consultants: S. Nicholson, W&C		Exhibit (E) Waiver (W) Staff Applicant		STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES					
				municipal services; JJ. Violations; LL MM. Utilization of site; and NN Natur	. Historic and archaeological resources; ral features.					
	2. FEES PAID - Copy of Receipt — Refer to Land Use Ordinance §125-66 B									
A	Administrative fee	E		\$2282/fee to be paid when the application is submitted						
В	Ordinance & reg. compliance	E		Provided by CEO						
	3. TITLE and INTEREST — Refer to Land Use Ordinance §125-66 C									
A/ B	Current deed or P&S agreement	E		Provide copy of deed						
C	Easements, deed restriction, ROW's, etc.	E		Provide copy of deed						
	4 LECAL DOCL	MEN	TC	Defente Land Has Ordinan	oo \$125 66 D					
A	Proposed easements, covenants,	WIEN	115 –	 Refer to Land Use Ordinan 	ce §125-00 D					
A	agreements, etc.	**								
В	Proposed deed for roads or other property to be dedicated	W								
C	Proposed performance and plant maintenance guarantees	W								
D	For condominiums proposed declaration, by laws, etc.	W								
E	Site restoration guarantee (if required)	W								
	E DEDA		D							
	5. PERMITS — Refer to Land Use Ordinance §125-66 E									

Own	lication #: SP-2022-05 JAX Traffic er/Applicant: JAX nit Consultants: S. Nicholson, W&C		oit (E) er (W) Appli- cant	STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES
A	Army Corps of Engineers	W			
В	Maine D.E.P.	E		SLODA amendment	
C	Other (DOT, DRB, BOA, etc.)	E		DOT Entrance permit	
		PAC	ITY &	& DESIGN — Refer to Land	Use Ordinance §125-66 F
A	Police	E		Provided by the Planning Dept	
В	PW, Solid Waste; SW; Street, Rec	E		Provided by the Planning Dept.	
C	Sewer	W			
D	Schools & Busing	W			
E	Water	\mathbf{W}			
			— R	efer to Land Use Ordinance	§125-66 G
A	Public water supply	W			
В	Central private water supply	W			
С	Individual wells	W			
D	Fire and dry hydrants, and fire ponds	W			
E	Public sewer	W			
F	Central subsurface wastewater system	W			
G	Shared subsurface wastewater system	W			
H	Stormwater disposal system	W			
Ι	All other utilities (gas, elec., cable, etc.)	W			
	7.1 DESIGN APPROVAL by St	tate &	Loca	al Agencies -— Refer to Land	Use Ordinance §125-66 H
A	Central water supply/DHHS	W			

Own	lication #: SP-2022-05 JAX Traffic ner/Applicant: JAX nit Consultants: S. Nicholson, W&C		bit (E) er (W) Appli- cant	STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES
В	Individual wells/DHHS	W	cum		
С	Central Subsurface Sewage disp/DHHS	W			
D	Wastewater discharge/DEP	W			
E	Approval by DOT	E			
	8. MAPS & PL	ANS -	– Ref	fer to Land Use Ordinance §12 Location map	25-66 J. (2)
	Magnetic north	E		This is a project location map.	
	Plan preparation date	E		Show project location and this	
	Graphic scale	E		information on a USGS 7.5-	
	Owner & applicant name/address	E		minute map	
	Designer, surveyor, engineer	E		1	
	Name of town development is in	E		1	
	Tax Map & Lot numbers and District	E			
	9. SITE PLAN Scale not			''=40' — Refer to Land Use C	Ordinance § 125-66 J
	Magnetic north	E			
	Plan preparation date	E			
	Graphic scale	E			
	Owner & applicant name/address	E			
	Designer, surveyor, engineer	E			
	Name of town where development is	E			
A	Name of abutters & Book/Page #	E			
В	Tax Map & Lot Number(s)	E			

Own	ication #: SP-2022-05 JAX Traffic er/Applicant: JAX nit Consultants: S. Nicholson, W&C	Exhibit (E) Waiver (W) Staff Appli- cant	STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES
C	Land use district(s)	E		
D	Lot line dimensions (metes & bounds)	E		
E	Lot size in square feet	W		
F	Locations of lot monumentations	W		
G	Total proposed development acreage	W		
Н	Remaining undeveloped land retained	W		
I	Lot numbers	W		
J	Lots developed/sold w/in past 5 years	W		
K	Subs w/in 200 ft. w/ owners names	W		
L	Existing/proposed 5 or 10 ft. contours	E		
M	Items w/in 200 ft of subject property:	E		
	Buildings & structures	E		
	Streets (w/names)	E		
	Sidewalks	E		
	Easements	E		
	Driveways, entrances, exits	E		
N	Existing/proposed bldgs/structures	E		
O	Distance btw proposed bldgs/structures	W		
P	Utilities locations - existing/proposed	E		
Q	Sign locations - existing/proposed	E		
R	Drainage, wetlands, V pools, aquifers	E		-
S	Stone walls, graveyards, and fences	E		-
T	Significant wildlife habitat or spawning grounds locations (IF&W)	E	Need clearance letter from state	
U	Rare & irreplaceable natural areas locations (Critical Areas Program)	E	Need clearance letter from state	
\mathbf{V}	Historic & archaeological site locations	E	Need clearance letter from state	
W	ALL wetlands & waterbodies w/in 200'	E		

Own	lication #: SP-2022-05 JAX Traffic ner/Applicant: JAX nit Consultants: S. Nicholson, W&C		bit (E) er (W) Appli- cant	STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES
X	Shoreline	W			
Y	100-year flood elevation	E			
Z	Areas w/ routine flood/standing water	E			
AA	Setbacks – Lot lines and water bodies	E			
BB	Fire hydrants & ponds existing/proposed	E			
CC	Fire/emergency equipment site access	E			
DD	Easements/access to water bodies existing/proposed	W			
EE	Access locations to adjacent undeveloped land	W			
FF	Rec/open space land existing/proposed	W			
GG	Solid, industrial, chemical, explosive or hazardous waste locations	W			
НН	Lot coverage calculations - existing/proposed	E			
II	Parking locations with dimension, angles, radii, etc.	E			
JJ	Soil test pit location	W			
10	MEDIUM INTENSITY SOIL	E			
	SURVEY – Refer to Land Use				
	Ordinance §125-66 J. (15)				
	1				
11.	LANDSCAPING, BUFFERING	& S	CREE	NING PLAN Refer to Land	Use Ordinance §125- 66 J (22)
A	Botanical & common names	W		THE PARTY OF THE P	
В	Plant locations & size	W			

Application #: SP-2022-05 JAX Traffic Owner/Applicant: JAX Permit Consultants: S. Nicholson, W&C		Exhibit (E) Waiver (W) Staff Applicant		STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES	
С	Installation schedule	W	Cant			
D	Maintenance plan	W				
E	Vegetation clearing limits	W				
F	Tree (8+" dbh) locations	W				
	12. STREET, SIDEWALK & Construction Drawings Showing a Pla			PLAN — Refer to Land Use (e, and Typical Cross Section of the follow		
A	Drainage scheme at all intersections existing/proposed	E		This project is not subject to 125-67 G but subject to 125-67 E		
В	Intersections of proposed streets with existing streets	E				
C	Access - roadway/ROW with edge of payment, shoulders, sidewalks and curbs	E				
D	Drainage feature - type, size, profile, cross section, and inverts	E				
E	Horizontal & vertical curve data	E				
F	Intersections - turning radii	E				
G	Centerline grade	E				
Н	Bearing, distance, tangent, radii for all street lines	E				
Ι	Location, dimension, grade, radii of acceleration and deceleration lanes	E				
J	Design details for street improvements	W				
K	Travel direction	W				
L	Crosswalk locations	W				
M	Street names	W				
N	Subdivision name	W				

Application #: SP-2022-05 JAX Traffic Owner/Applicant: JAX Permit Consultants: S. Nicholson, W&C		Exhibit (E) Waiver (W) Staff Appli- cant		STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES					
	13. E-911 — Refer to Land Use Ordinance §125-66 K									
A	Street name certification - E911	W								
	14. PHOTOGRAPHS — Refer to Land Use Ordinance §125-66 L									
A	Town's aerial photograph	All pic E	tures m	ust be labeled with a description						
В	Pictorial of site from public ways, site location/N,S,E,W	E								
	Existing improvements within 200'	E								
	Existing vegetation within 200'	E								
	Other physical/natural features w/in 200'	E								
	15. SUBSURFACE WASTEV	VATE	ER DI	SPOSAL — Refer to Land U	se Ordinance §125-66 M					
A	HHE 200 Forms	W			9					
	16. GROUNDWATER -	to be	extra	cted — Refer to Land Use O	rdinance §125-66 N					
A	Use assessment rates for day, month, yr	W								
В	Hydrogeological impact study	\mathbf{W}								
	17. EROSION & SEDIMENTATION PLAN — Refer to Land Use Ordinance §125-66 O									
A	Erosion & sedimentation control plan	E								
	10	~								
			<u>UN —</u>	- Refer to Land Use Ordinand	ce §125-66 P					
A	Statement from Fire Chief	E		Provided by the Planning Dept.						

Application #: SP-2022-05 JAX Traffic Owner/Applicant: JAX Permit Consultants: S. Nicholson, W&C		Exhibit (E) Waiver (W) Staff Applicant		STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES	
В	Fire Marshal's Office prelim. approval	W				
	19. SOLID & HAZARD	OUS	WAS	TE — Refer to Land Use Or	dinance §125-66 Q	
A	Description, amount, nature of solid and/or hazardous waste	W				
	Copy of applicable fed & state regs for spec. & hazardous wastes	W				
	Copy of applicable fed & state permits for spec. & hazardous wastes	W				
	Method of transport, storage, disposal and material handling	W				
	20. BUILDING PLANS & ELEVATIONS — Refer to Land Use Ordinance §125-66R					
A	Floor plans for all levels of all structures	W				
В	All elevations indicating height and proposed exterior materials and colors	W				
C	Proposed use of all floors	W				
D	Seating capacity - restaurants only	W				
			<u>N — J</u>	Refer to Land Use Ordinance	e §125-66 S	
A	Exterior lighting details existing & proposed	E				
В	Types of fixture with manufacturer' specifications sheets	E				
C	Radius of intensity of illumination	E				
	22. SIGNS — Refer to Land Use Ordinance §125-66 T					

Application #: SP-2022-05 JAX Traffic Owner/Applicant: JAX Permit Consultants: S. Nicholson, W&C			oit (E) er (W) Appli- cant	STAFF COMMENTS/NOTES	APPLICANT COMMENTS/NOTES
A	Design details existing & proposed	E			
23. TRAFFIC IMPACT — Refer to Land Use Ordinance §125				ee §125-66 U	
A	Trip counts per day & peak hour	W			
В	Engineering impact analysis	\mathbf{W}			
	24. TECHNICAL & FINAL	NCIAI	_ CAI	PACITY — Refer to Land Us	se Ordinance §125-66 V
A	Cost estimate	E			
В	Financing arrangements	E			
C	Curriculum vitae of designers	\mathbf{W}			
D	Descriptions of similar project by	\mathbf{W}			
	developer				
	25. BUSINESS OPI	ERATI	IONS	— Refer to Land Use Ordina	ance §125-66 W
A	Operating statement & mitigation plan	\mathbf{W}			
В	Employment & operation hours	\mathbf{W}			
	projections				
C	Operator information (if not owner)	\mathbf{W}			
26. MINING — Refer to Land Use Ordinance §125-66 X					
A	D.E.P. Permit where applicable	W			
В	Extraction plan	W			
C	Restoration plan	W			
D	Performance guarantee for restoration	W			
<u>E</u>	Washing operation plans	W			
F	Evidence of insurance	\mathbf{W}			

Form Rev.04/21/2022



125-66.B FEES AND COMPLIANCE WITH PREVIOUSLY APPROVED PLANS

The administrative and public notice fees, totaling \$2,282, are provided in conjunction with the submission of this Site Plan Application. The total budget for the Lot B Access Project is \$2,500,000. This budget includes the cost of design, permitting, construction, and other associated costs. The estimated of construction cost alone is \$2,000,000.

The Jackson Laboratory complies with all Land Use ordinances and regulations of the Town of Bar Harbor. Evidence of this will be provided by the CEO.

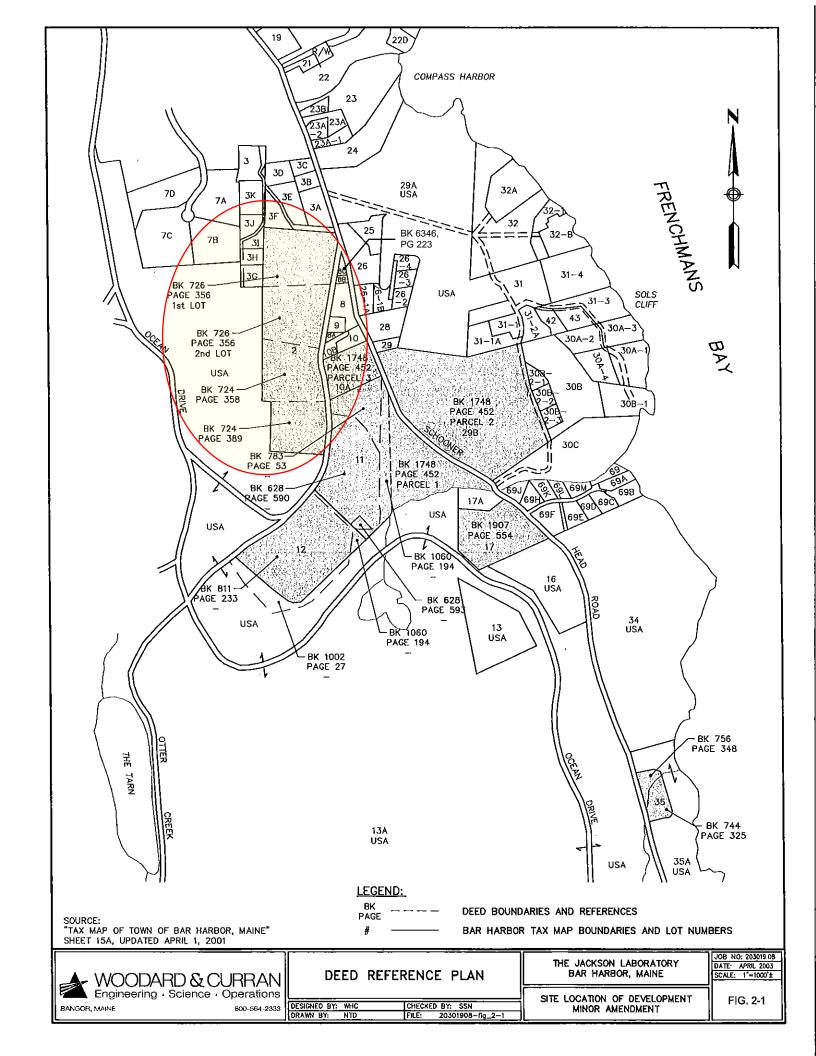


125-66.C TITLE AND INTEREST

The Jackson Laboratory is located on several parcels of land in the Town of Bar Harbor. The Site Plan included in Exhibit 9 illustrates the lot and parcel boundaries in the vicinity of the proposed Project.

Attached is the deed to the lot that will be developed by this Project, Tax Map 115, Lot 021. The deed references for this lot are 726/356, 724/358, and 724/359. There are no easements or rights-of-way on the Project site.

As documented on the Checklist, waivers are requested for this Exhibit.



K N O W A L L M E N B Y T H E S E P R E S E N T S,
THAT I, Edith P. Moore of Bar Harbor, Hancook County, Maine in consideration of one dollar and other valuable considerations paid by Roscoe B.
Jackson Memorial Laboratory, a corporation duly organized and existing under the
Name of the State of Maine, located in said Bar Harbor the receipt whereof I do hereby acknowledge, do hereby REMISE RELEASE, BARGAIN, SELL AND
CONVEY, and forever QUIT-CLAIM unto the said Roscoe B, Jackson Memorial
Laboratory, its successors and assigns forever, two certain lots or
narcels of land, situated in said Bar Harbor, and being the same property
described as conveyed in deed Louis B. McCagg to Edith P. Moore dated
November 25, 1919 and recorded in Hancook County Registry of Deeds in
Book 550, Page 47, description in said deed being as follows:

"FIRST LOT: Beginning at a stone nost set in the ground in the
weatern side of the highway leading from Bar Harbor to Otter Creek,
st the southeastern corner of land formerly of Gardiner Sherman; thence
by said highway, south five degrees and fifteen minutes west one hundred
and thirty-five feet, to the junction of said highway with the Schooner
Head Rosd; thence still following said highway leading to Otter Creek,
south twenty-six degrees west four hundred and seventy-one and fivetenths feet to a stone post set in the ground on the western side of
said highway, at the northeastern corner of land formerly of Roberts, now
of the grantor herein, seid lot being the lot hereefter described marked
"Second Lot"; thence north sixty-nine degrees and thirty minutes west,
but everywhere following the northern line of said land hereinafter described marked "Second Lot", seven hundred and twenty-one and five-tenths
feet to a stone post set in the ground in the eastern line of land now
or formerly of Stanford and others; thence north nineteen degrees east,
but everywhere following said eastern line of said land now or formerly
of Stanford and others, five hundred and ninety-seven feet to a stone

post set in the ground in the southwestern corner of seid land formerly of Cardiner Sherman; thence south sixty-nine degrees and fifteen minutes cast, but everywhere following the southern line of seid land formerly of Cardiner Sherman, seven hundred and forty-five and five-tenths feet to the stone post set in the ground at the place of beginning, containing ten and sixty-four one-hundredths acres, more or less.

SECOND LOT: Beginning on the west side of the road leading from Ber Harbor to Otter Creek at a stone post at the southeast corner of the lot of land hereinabove described marked "First Lot"; thence coutherly, but always following said road, five hundred and eighty-five feet, more or less, to aplece of iron pipe driven in the ground at the northeast corner of a lot of land formerly owned by Frank M. Conners; thence north sixty-eight degrees west, but always following the north line of more or less, to aplece of iron pipe driven in the ground at the northesest corner of a lot of land formerly owned by Frank M. Gonners; thence north sixty-eight degrees west, but always following the north line of said land formerly of Conners, six hundred and thirty-eight feet, more or less, to an iron bolt set in the ground in the east line of a lot of land owned now or formerly by F.W. Hill, Trustee; thence north twenty degrees and thirty minutes east, but always following the east line of said land now or formerly of F.W. Hill, Trustee, five hundred and eighty-five feet, more or less, to the southwest corner of said lot of land hereinabove described marked "First Lot"; thence south seventy-two degrees east, but slways following the south line of said lot of land marked "First Lot"; seven hundred and twenty-six feet, more or less, to the place of beginning, containing nine and one-half scres, more or less.

Meaning and intending to include and convey, end I do hereby sell and convey, whether included in the above saccific describitions or not, all and the same land described as conveyed to me, the said Louis B. McCagg, in three certain deeds, to wit: Deed from these. T. How, dated February 6, 1903, and recorded in the Hancock Gounty, Maine, Registry of Deeds, in Vol. 388, Page 299; deed from Francis Murdock, William P. Ellison and Edward H. Mason, dated February 6, 1903, and recorded in said Registry in Vol. 433, Page 209."

TO HAVE AND TO HOLD, the same, together with all the orivileges and appurtenances thereunto belonging, to the said Roscoe B. Jackson Memorial Leboratory, its successors and assigns forever.

AND I do COVENANT with the said Grantee, its successors and assigns, thet I will WARRANT AND FOREVER DEFEND the premises to the seid Grantee, its successors and assigns forever, against the lawful claims and demands of sll persons claiming by, through, or under me.

IN WITNESS WHEREOF, I the said Edith P. Moore, being unmarried, have hereunto set my hand and seel this 23rd day of March in the year of

SIGNED, SEALED AND IN PRESENCE OF

Edith P. Moore (L.S.)

STATE OF New York County of New York) 38 March 23 1949. Personally appeared the above named Edith P. Moore and acknowledged the above instrument to be her free act and deed.

this instrument to be signed with its corporate name and staled with its corporate seal by Addie R. Carlisle Its cashier thereunto duly authorized, this IN WITHEND WHENEUF, said Liberty National Bank in Ellsworth has caused 24th day of December A. D. 19

Signed, Sealed and Dellvered in presence of Margaret K Patten

Corporate LIBERT Seal

LIBERTY NATIONAL BANK ELLSWORTH

By Addle R. Carlisle Its Cashler

STATE OF MAINE

HAN COCK SS.

Personally appeared the above named Addie R Carlisle and acknowledged the foregoing instrument to be the free act and deed of Liberty National Bank in Ellsworth and his free act and deed in his said capacity.

Before me,

Notarial Seal

Margaret K. Patten

Notary Public. MY COMMISSION EXPIRES APR. 17, 1953

-m. A.M., and entered by, 9h. a t 1948 Rec!d Dec. 27,

Tessie B. Patten, Regir.

U.S.I.R. tion Stamps loca \$.55 of o 12/20/48 wemo B. I. Co. of t

in consideration of one dollar and other valuable considerations, paid by the Roscoe B. Jackson Deeds on February 16, 1923, Vol. 574, Page 486, said description being as folsigns forever, a cer'tain lot or parcel of land situated in said Bar Harbor and being the same property described as conveyed in deed John K. Preble and Myra E. Preble to Brewer Ice Company and recorded in Hancock County Registry of Memorial Laboratory, a corporation duly organized and existing under the laws of the State of Maine, and located at said Bar Harbor, the receipt whereof it does hereby acknowledge, does hereby GIVE, GRANT, BARGAIN, SELL AND CONVEY, unto the said Roscoe, B. Jackson Memorial Laboratory its successors and as-KNOW ALL MEN BY THESE PRESENTS, That the Brewer Ice Company, a corporation duly organized and existing under the laws of the State of Maine, and located at Bar Harbor in the County of Hancock in said state, in consideration

"Beginning at a point on the Westerly side of the Otter Creek Road and ten feet southerly from a stone post set in the ground; thence North 67 degrees west following old line 717 feet to a stone post set in mount of stone; thence North 27 degrees East 610 feet to an oak stump; thence South 67 de-grees East 620 feet to westerly line of said Otter Creek Road; thence by the westerly line of said Road Southerly 610 feet to place of beginning contain-

Laboratory, its successors and assigns, to it and their use and behoof forever AND It does COVENANT with the said Grantee, its successors and assigns, privileges and appurtenances thereof, to the said Roscoe B. Jackson Memorial ing 9.3 acres, more or less." TO HAVE AND TO HOLD the aforegranted and bargained premises with all

that it is lawfully seized in fee of the premises, that they are free of all incumbrances; that it has good right to sell and convey the same to the said Grantee to hold as aforesaid; and that it and its successors shall and will WARRANT AND DEFEND the same to the said Grantee, its successors and assigns

Armida R. Higgins, President, thereunto duly authorized, this seventeenth day forever, against the lawful claims and demands of all persons. IN WITNESS WHEREOF, the said Brewer Ice Company has caused this instru-ment to be sealed with its corporate seal and signed in its corporate name b of December, in the year of our Lord one thousand nine hundred and fortyment to be

Signed, Sealed and Delivered

in presence

Corporate

Company Armida R. Higgins **President**

STATE OF MAINE

900

County of Hancock,

córporation

the Brewer Ice Company, and acknowledged the foregoing instrument to be her Higgins, President December 17, 1948. Then personally appeared the above named Armida R.

Before me,

free act and deed in her said capacity and the free act and deed of

Justice of the Norman Shaw.

-m. A.M., and entered by 1948 at 27, Dec. Rectd

Tessie B. Patten



125-66.D LEGAL DOCUMENTS

There are no proposed easements, covenants, agreements, or other legal documents needed for the Project. It is also not necessary to secure deeds for roads or other dedicated properties, or to propose performance, maintenance, or restoration guarantees.

As documented on the Checklist, waivers are requested for this Exhibit.



125-66.E PERMITS

The Jackson Laboratory (JAX) campus Site Location of Development Permit (SLOD) #L-015327-26 will be amended to permit this Project.

An application has been submitted to Maine DEP for full Project review concurrently with the Planning Board review. The approved permit will be provided to the Bar Harbor Planning Office when it is received, likely in Fall 2022.

No other environmental permits beside the SLOD Amendment are required for this Project. As documented on the Checklist, waivers are requested for this Exhibit.



125-66.F APPROVAL OF CAPACITY AND DESIGN

The proposed Project will not require any public services. If required, communications/capacity statements from the Town Water Division and Public Works, as well as from the Police and Fire Departments, will be attached.

A Stormwater Analysis and report was prepared for the proposed Project to incorporate stormwater management BMPs. The Project will be required to meet the DEP's Basic, General, and Flooding Standards. The stormwater management details are shown on the Design Plans set included as Figure 9-3.

The stormwater will be managed in accordance with the requirements of the SLOD permit, and both quantity and quality impacts from the development will be mitigated so the runoff from the site will not negatively impact downstream drainageways. This information has been provided to Maine DEP for their review and approval with the amendment to the SLOD permit. A copy of the full Analysis Report will be provided to the Town if requested, but a summary of the findings is provided here.

The proposed entrance drive is approximately 600' long, with a paved footprint area of 10,895 sf. The widened pavement along Route 3 that will allow for a divided turn lane will create 6,225 sf of new pavement, as well. An area of existing pavement (920 sf) near the top of the new drive will be removed to create a clear driving lane, and an equivalent area of new paving (965 sf) will be added near the old entrance where new parking spaces will be defined to replace those lost to the new driveway. The paving at the existing parking lot entrance will be removed and converted to a sidewalk and landscaped area.

Overall, the Project adds 0.42 ac of new impervious and eliminates 0.20 ac existing impervious for an impervious increase of 0.22 ac. As an access road, this is a linear Project, and the target treatment levels are 75% of the impervious area and 50% of the total developed area. The fill slope below the new drive will be seeded with MDOT roadside mixture #3 to stabilize it, and it will also be planted with native shrubs and allowed to naturalize. Since it will not be mowed, this area is excluded from the "developed" area of the Project.

An underdrained soil filter with peak runoff storage capacity will provide stormwater treatment for the new access drive. The table below from the report shows that the BMP provides adequate retention to ensure that the flooding standard is met.

STORM EVENT	EXISTING CONDITIONS (CFS)	PROPOSED CONDITIONS (CFS)	DIFFERENCE
2-yr	8.66	8.07	-0.59
10-yr	14.34	12.91	-1.43
25-yr	17.93	15.96	-1.97

The underdrained soil filter will capture and treat runoff from most of the new access drive and also the filter itself. It will also collect runoff from an area of existing pavement at the top of the new drive.

As described in the report, the filter provides 1,690 cf of water quality volume between the surface of the filter (el. 156') and the rim of the outlet grate (el. 157'). This exceeds the required channel protection



volume of 1,337 cf, providing excess treatment capacity. As shown in the table below, this excess capacity (353 cf) provides additional treatment for the equivalent of 4,220 sf of impervious area. This excess capacity will compensate in part for the new widened pavement along Route 3 that will create a right-hand turn lane into the new drive, as well as the lowest part of the new drive. The location of this new pavement within the MDOT right-of-way makes it difficult to provide treatment for it.

At the south end of the lot, the existing entrance pavement will be removed, and the area loamed and seeded (7,800 sf). A 5' wide bituminous sidewalk (580 sf) will cross the area to provide access to the Route 3 pedestrian crossing. The pavement that remains above (west of) the sidewalk will be restriped as parking spaces, and two small areas of pavement (965 sf) will be added. This will provide a total of 23 "new" spaces to compensate for the 26 impacted by the reconfiguration of vehicular and pedestrian access to the parking lot.

The table below tabulates the areas of the Project that are altered by the proposed Project and where treatment will be provided:

Development Impact (SF)	Area (SF)	WQV (CF)
Vegetated to Pavement	18,085	
Existing Pavement to New Pavement	580	
TOTAL IMPERVIOUS	18,665	1,555
Pavement to Vegetation	8,720	
Existing Vegetated to New Landscaped	9,600	
TOTAL LANDSCAPED	18,320	611
TOTAL AREA/TOTAL WQV REQ.	36,985	2,166
WQV Provided		1,690
Pavement Treated	12,200	1,017
Pavement Overtreated	4,240*	353
Vegetation Treated	9,600	320
Treatment Credit from Previous Lot B Project		1,604

^{*}Equivalent area that is overtreated (353 CF/(1"/12"))=4,240 SF

Based on the areas above, the following table demonstrates that the treatment area standards for a linear Project are met:

	Impervious	Developed
Treated Area (SF)	16,440	25,040
Total Area (SF)	18,665	36,985
% Treated	88.1%	70.4%



Figure 6-1: Capacity Statements



EXHIBIT 7 125-66.G, H, I DESIGN APPROVAL

An MDOT Entrance/Driveway permit will be required for the Project. This permit has been applied for and the approval will be provided to the Town when it is received.

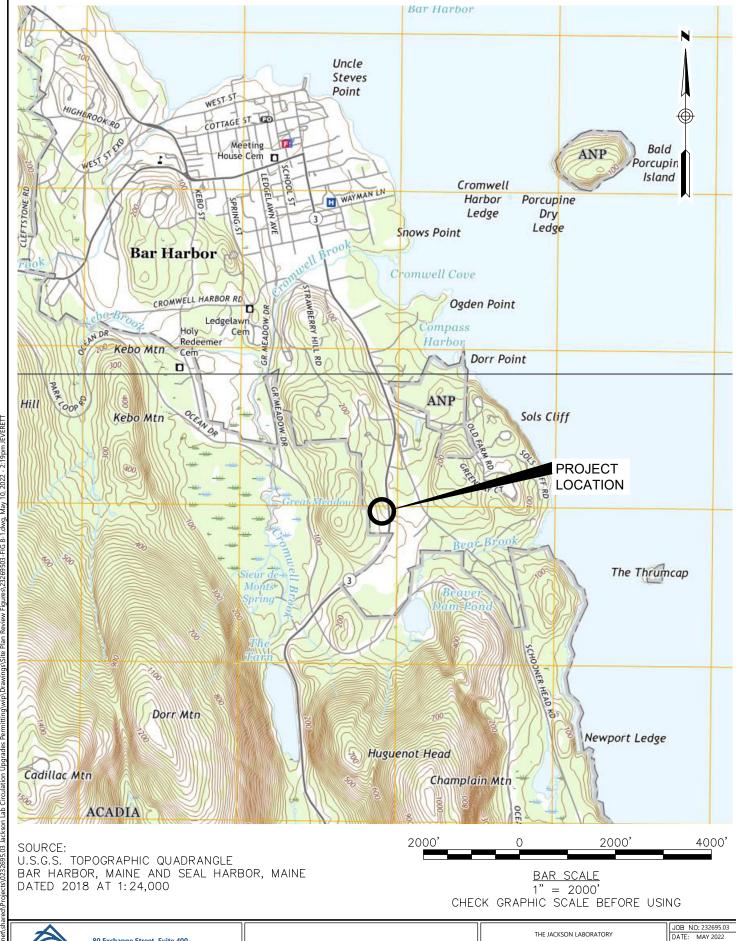
The Project will not create any new traffic as the parking lot itself will be unchanged. No other MDOT permitting is required.

As documented on the Checklist, waivers are requested for this Exhibit.



125-66.J.(2) LOCATION MAP

A Location Map or context plan, Figure 8-1, is included in this Exhibit. It shows the location of the proposed Project in relation to the surrounding area.



Woodard & Curran 80 Exchange Street, Suite 400 Bangor, Maine 04401 800. 564.2333 | www.woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

LOCATION MAP

CHECKED BY: SSN

DESIGNED BY: SSN

BAR HARBOR, MAINE

OATE: MAY 2022 SCALE: 1"=2000"

TOWN OF BAR HARBOR SITE PLAN REVIEW APPLICATION LOT B ACCESS

FIGURE 8-1



125-66.J MAPS, PLATS, OR PLANS

Exhibit 9 contains plans illustrating the proposed Project and existing conditions at the site. All information requested by the Application that is relevant to the existing conditions or to the proposed Project is illustrated on one or several of the plans as explained below.

The Site Plan, Figure 9-1, gives a general orientation of the Project in relation to the abutting properties. The footprint of the proposed Project is illustrated. The scale of the plan is 1 inch = 200 feet.

Figure 9-2 illustrates existing conditions at the site. The Project design set is included here as Figure 9-3 to provide all site design details for proposed conditions.

Correspondence from Maine Natural Areas Program, IF&W and the Maine Historic Preservation Commission is attached as Figure 9-4. These requests were made in reference to a previous Project at JAX but were analyzed for the entire campus area.

Table 2 shows the change in lot coverage for the entire JAX campus resulting from the proposed Project.

125-66.J.(32) FLOOD PERMIT

A Flood Zone Map is attached illustrating that The Jackson Laboratory properties are not located within either the 100-year or the 500-year flood zones, as determined by the Federal Emergency Management Agency. No Flood Hazard Development Permit will be necessary for the proposed Project.

As documented in the Checklist, waivers are requested for this Exhibit.

Proposed Project

Lot B Access Project

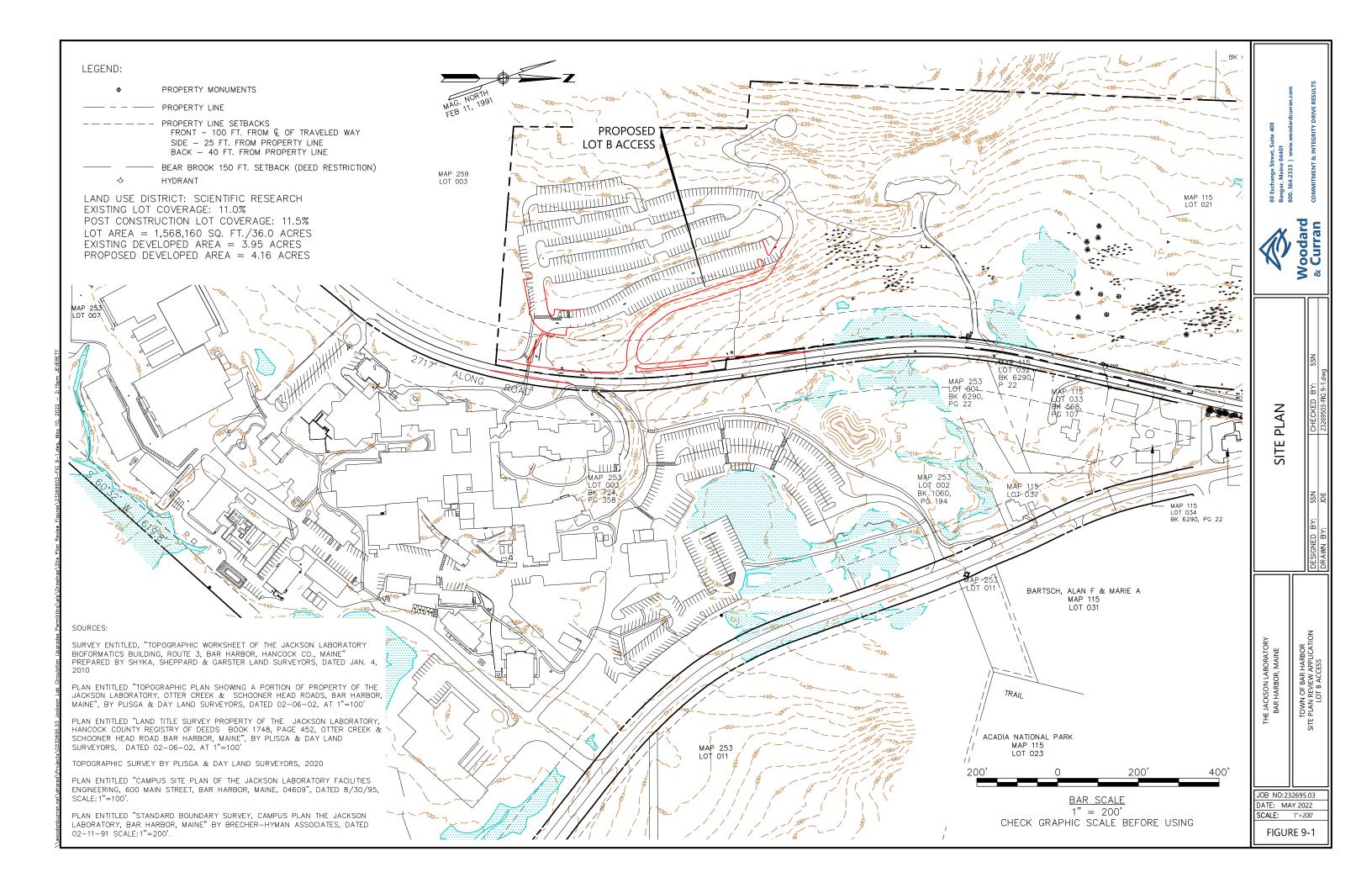
Before Proposed Project

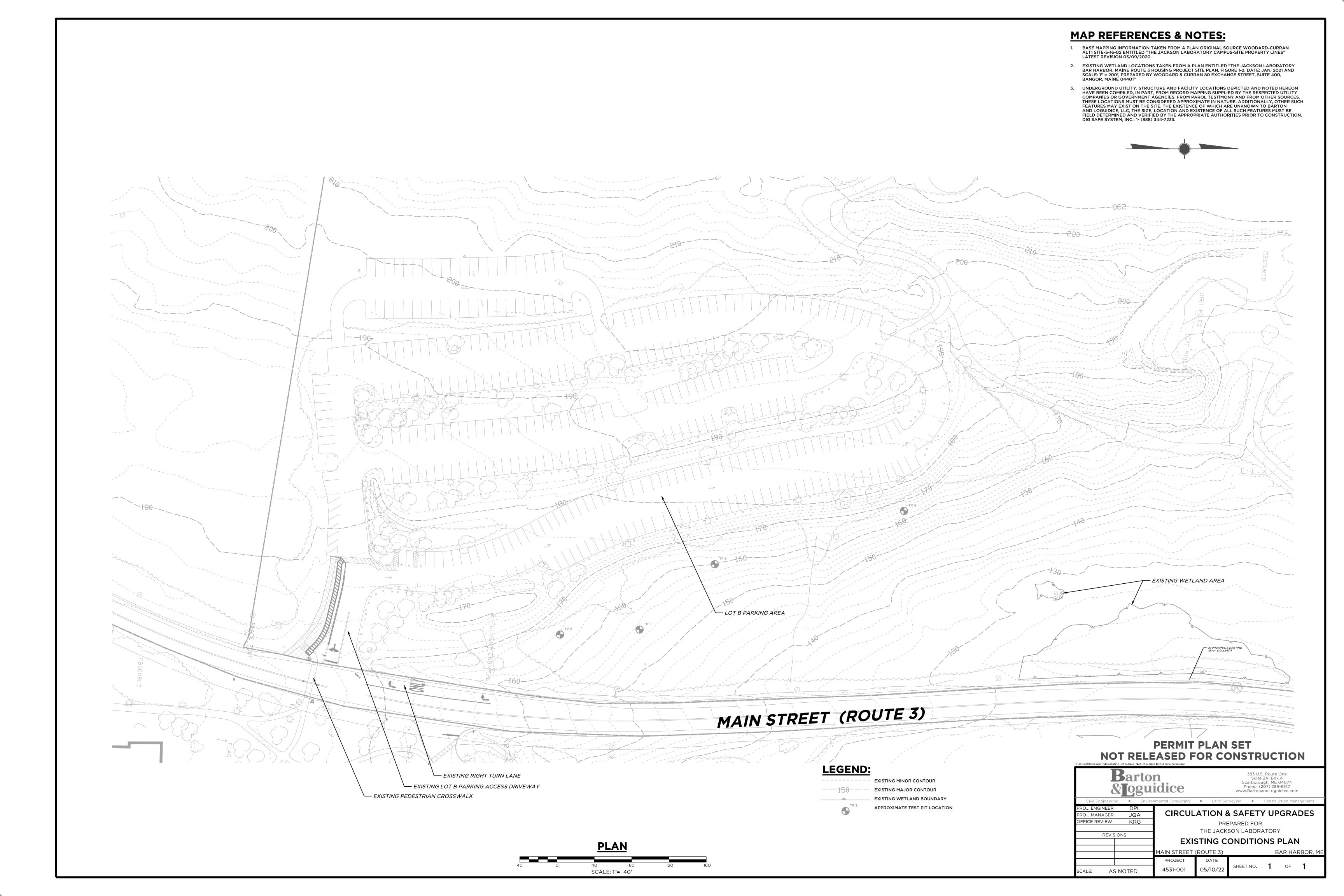
Parcel	Description	Map; Lot	Total Lot	Area	Footprint /	Lot Coverage	
			sq. ft.	acres	sq. ft.	acres	%
		253; 7, 3, 2, 4, 5					
Α	Main Campus	and 115; 37	3,172,605	72.83	1,094,273	25.12	34.49%
В	Lot B and Woodland Cottages	115; 21	1,550,736	35.60	171,950	3.95	11.09%
С	East side of Schooner Head Road	253; 11, 10*	1,608,017	36.92	-	-	0.00%
D	High Seas Cottage	259; 1	182,952	4.20	14,800	0.34	8.09%

After Proposed Project

Parcel	Description	Proposed Project	Total Lot	Area	Footprint A	Lot Coverage	
		sq. ft.	sq. ft.	acres	sq. ft.	acres	%
Α	Main Campus		3,172,605	72.83	1,094,273	25.12	34.49%
В	Lot B and Woodland Cottages	9,365	1,550,736	35.60	181,315	4.16	11.69%
С	East side of Schooner Head Road		1,591,247	36.92	-	0.00	0.00%
D	High Seas Cottage		182,952	4.20	14,800	0.34	8.09%
	Totals		6.497.540	149.55	1.290.388	29.62	19.81%

^{*}Added Lot 253-010 purchased 2011, corrected area based on boundary survey 2020



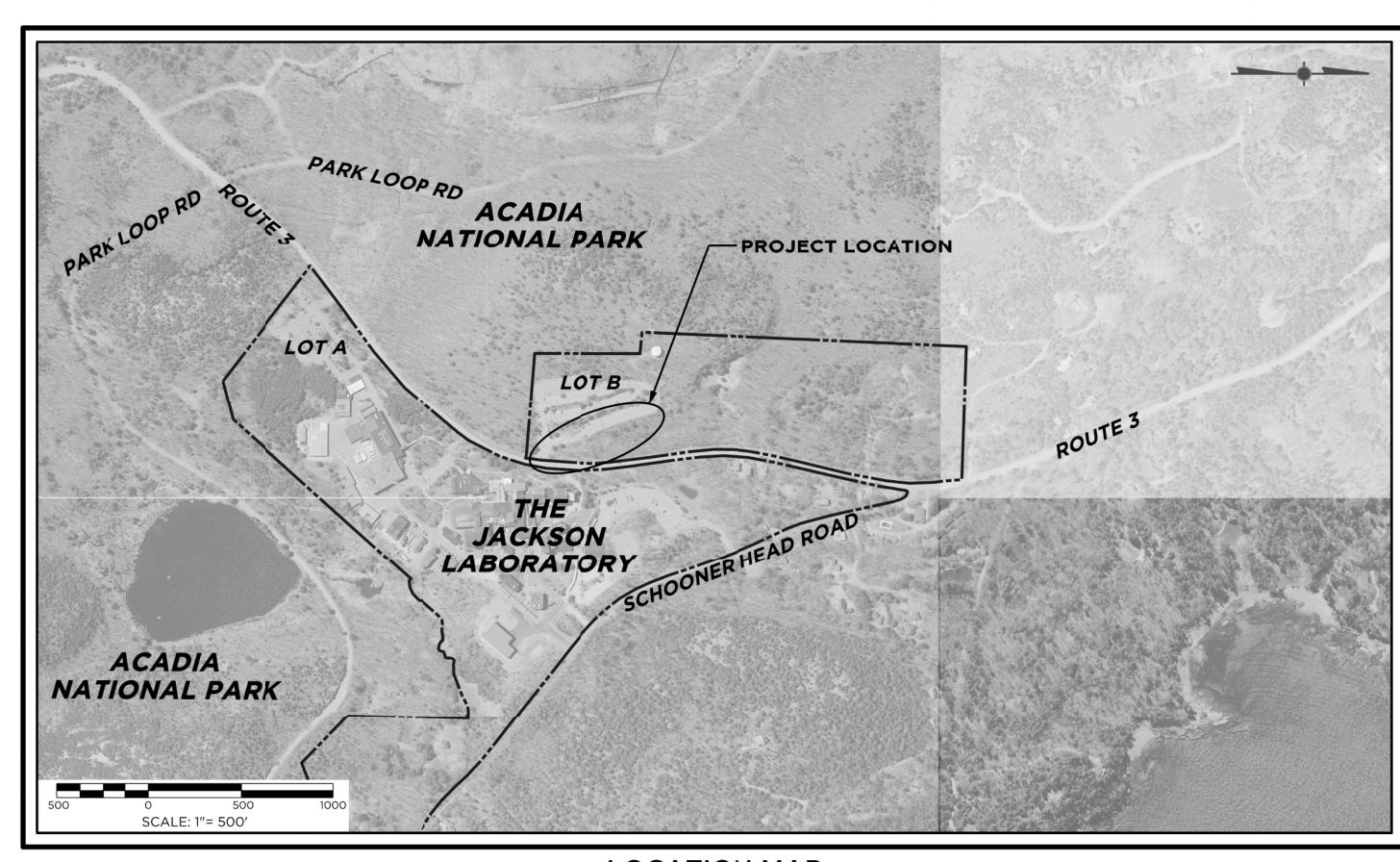


CIRCULATION & SAFETY UPGRADE PLANS

PARKING LOT B ACCESS RELOCATION BAR HARBOR, ME

PREPARED FOR

THE JACKSON LABORATORY 600 MAIN STREET BAR HARBOR, ME 04609



LIST OF SHEETS

DATE: 04/20/22 **REVISED:**

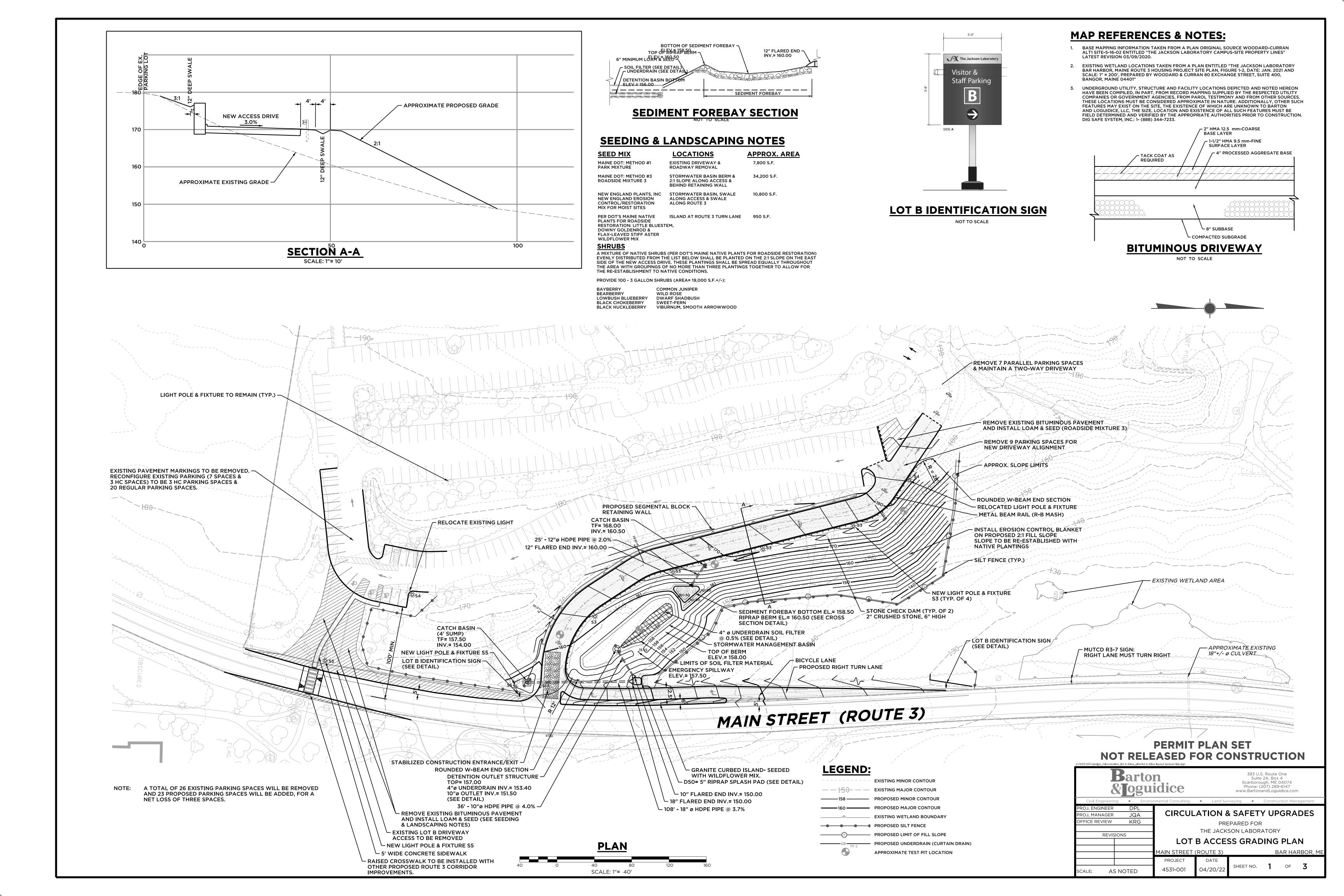
LOT B ACCESS GRADING PLAN LOT B ACCESS PLAN & PROFILE LOT B ACCESS E&S NOTES AND DETAILS

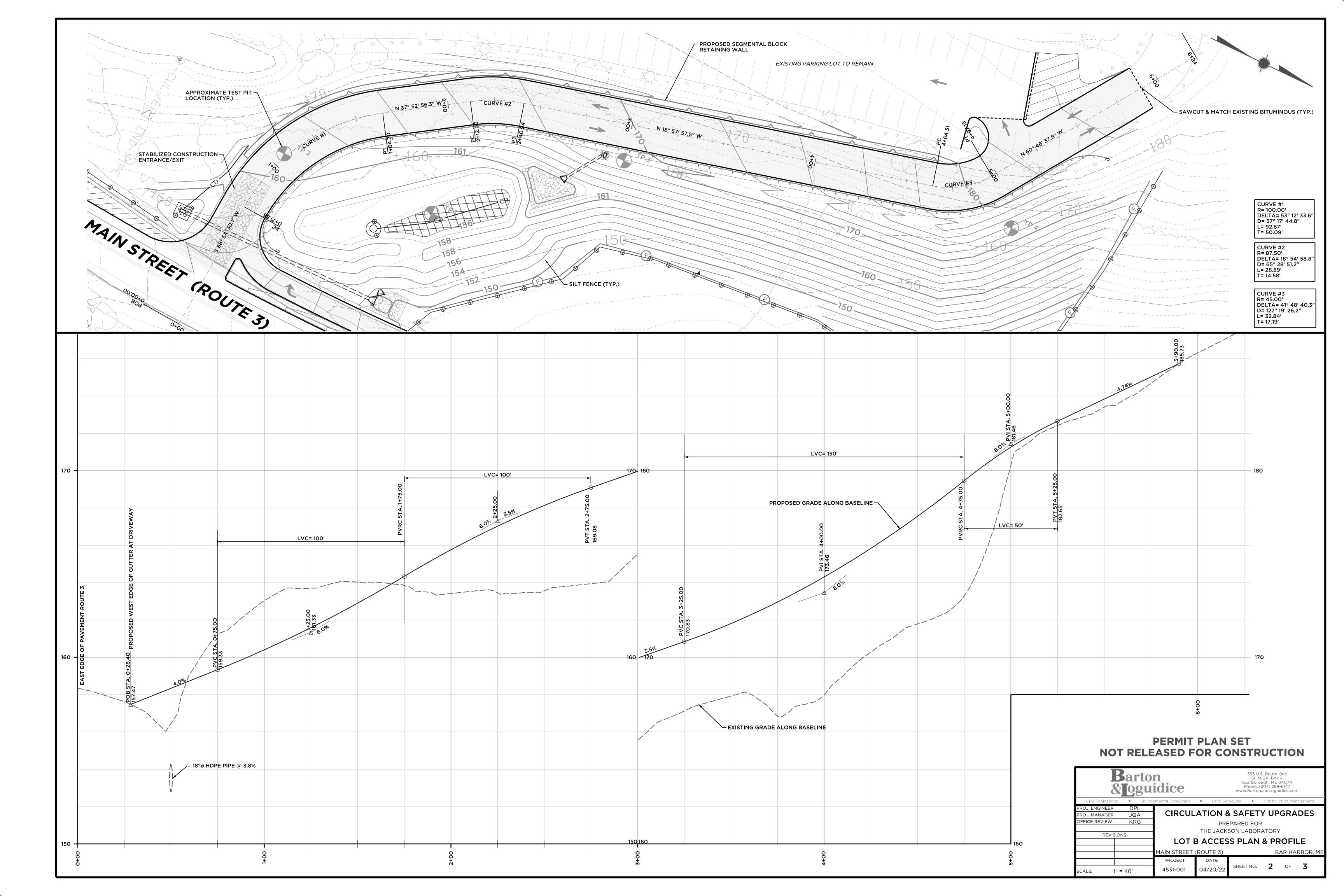
LOCATION MAP

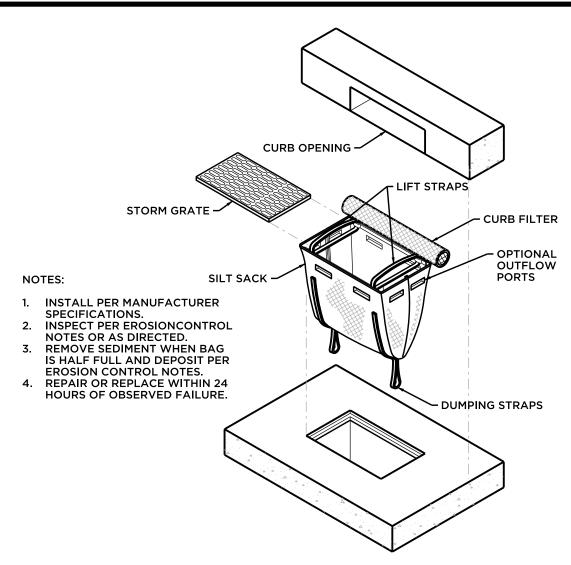
PREPARED BY:



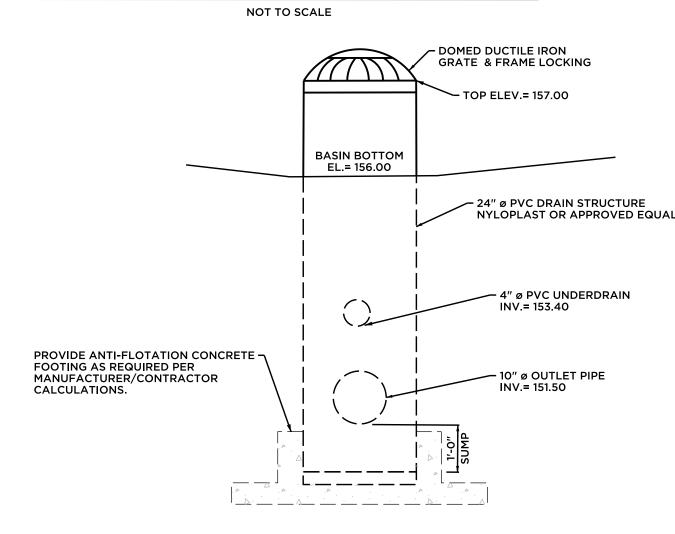
383 U.S. Route One Suite 2A, Box 4 Scarborough, ME 04074 Phone: (207) 289-6147 www.BartonandLoguidice.com





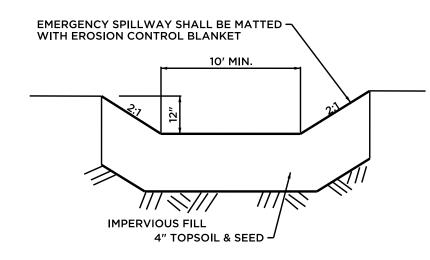


INLET SEDIMENT CONTROL DEVICE



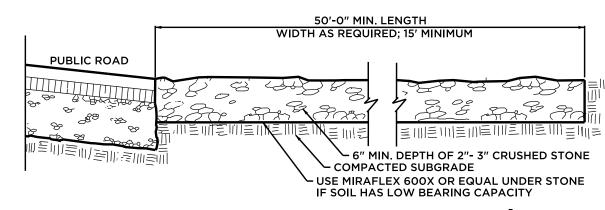
DETENTION BASIN OUTLET STRUCTURE

NOT TO SCALE



EMERGENCY SPILLWAY DETAIL

NOT TO SCAL



NOTES:

- NOTES:

 1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING AND NECESSARY APPLICATION
- OF LIME, FERTILIZER AND SEED.

 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECO'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKED SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF
- 3. ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED
- THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.

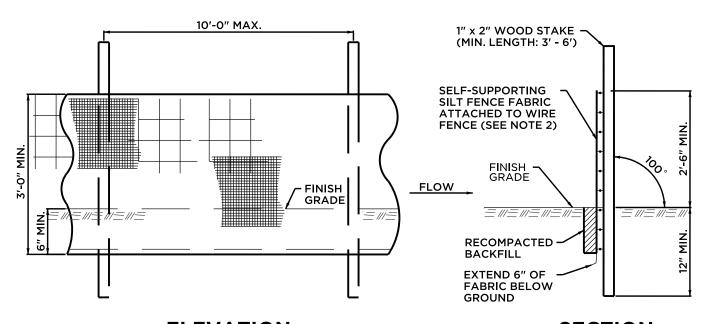
 4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP'S TYPE.

 5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROX. 3" OVERLAP.

EROSION CONTROL BLANKET SLOPE INSTALLATION

NOT TO SCALE

STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.

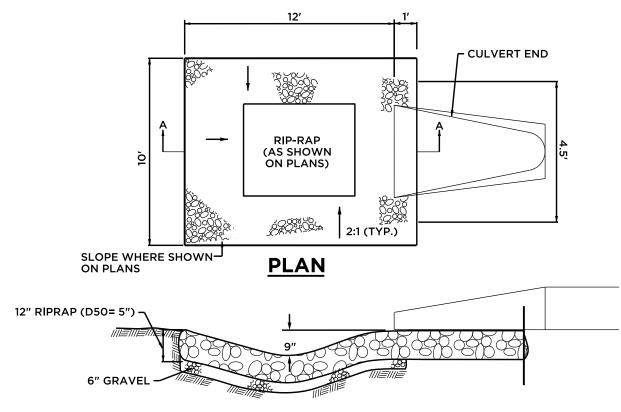


<u>ELEVATION</u>

- <u>SECTION</u>
- INSTALL SILT FENCE & WOOD STAKES AS RECOMMENDED BY MANUFACTURER.
 SILT FENCE SUBJECT TO HEAVY LOADS SHALL BE REINFORCED WITH FARM FENCING & STEEL
- POSTS (0.5 # STEEL/L.F.). THE MINIMUM POST LENGTH SHALL BE 5'-0".
 3. SILT FENCE FABRIC SHALL BE A PERVIOUS SHEET OF WOVEN PROPYLENE, NYLON, POLYESTER
 OR POLYETHYLENE FILAMENTS AND SHALL BE CERTIFIED BY THE MANUFACTURER OR SUPPLIER.

SILT FENCE

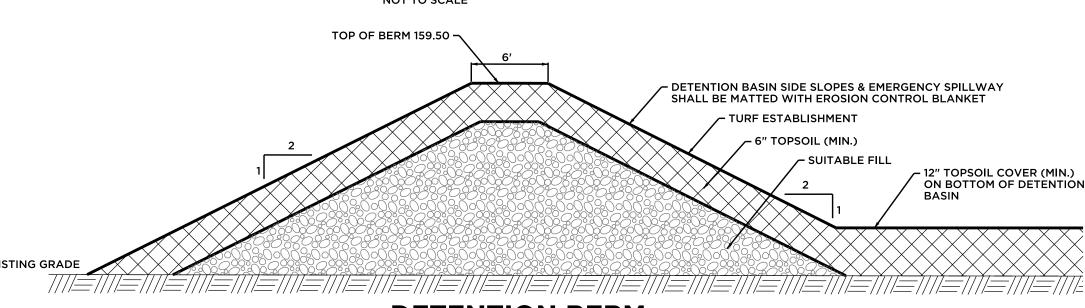
NOT TO SCALE



SECTION A-A

RIPRAP SPLASH PAD

STABILIZED CONSTRUCTION ENTRANCE/EXIT PAD DETAIL



DETENTION BERM

OT TO SCALE

EROSION & SEDIMENTATION CONTROL NOTES:

IN ORDER TO EFFECTIVELY PREVENT AND CONTROL EROSION RELATED TO SOIL DISTURBANCE, THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPS) SHALL BE EMPLOYED. ALL MEASURES WILL BE IMPLEMENTED IN ACCORDANCE WITH THE MAINE EROSION AND SEDIMENTCONTROL BEST MANANGEMENT PRACTICES (BMPs) MANUAL FOR DESIGNERS AND ENGINEERS, OCTOBER 2016.

1. TEMPORARY SOIL STABILIZATION BMPS

T EMPORARY MULCHING SHALL BE APPLIED IMMEDIATELY TO ANY AREAS THAT HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED. ANY DISTURBED SOIL WITHIN 100' OF A STREAM, WATER BODY OR WETLAND MUST RECEIVE TEMPORARY MULCH WITHIN 7 DAYS FOLLOWING DISTURBANCE AND BEFORE ANY STORM EVENT. ALL OTHER AREAS SHALL RECEIVE TEMPORARY MULCH WITHIN 14 DAYS OF DISTURBANCE. AREAS WHICH CANNOT BE SEEDED DURING THE GROWING SEASON SHALL BE MULCHED FOR OVER-WINTER PROTECTION. THE FOLLOWING ARE ACCEPTABLE TEMPORARY MULCHING METHODS:

HAY OR STRAW MULCHES NEED TO BE AIR-DRIED, FREE OF UNDESIRABLE SEEDS AND COARSE MATERIALS. APPLICATION RATE MUST BE 2 BALES (70-90 POUNDS) PER 1000 SQ FT OR 1.5 TO 2 TONS (90-100 BALES) PER ACRE TO COVER 75-90% OF THE GROUND SURFACE. HAY OR STRAW CAN BE DRIVEN INTO THE GROUND WITH TRACKED EQUIPMENT IF SLOPES ARE LESS THAN 3%, OR CAN BE ANCHORED WITH JUTE, WOOD FIBER OR PLASTIC NETTING ON STEEPER SLOPES.

EROSION CONTROL MIX IS A DENSE, PROCESSED MIXTURE OF INTERTWINING SHREDDED WOOD FRAGMENTS AND GRIT THAT WILL STABILIZE A SITE IMMEDIATELY WITHOUT VEGETATION. EROSION CONTROL MIX CONSISTS PRIMARILY OF ORGANIC MATERIAL MANUFACTURED ON OR OFF THE PROJECT SITE AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, OR PARTIALLY COMPOSTED WOOD PRODUCTS. EROSION CONTROL MIX CAN BE USED AS A STAND-ALONE REINFORCEMENT ON SLOPES OF 2 HORIZONTAL TO 1 VERTICAL OR LESS AND DRAINING IN SHEET FLOW. IT CAN BE PLACED EVENLY WITH A HYDRAULIC BUCKET, WITH A PNEUMATIC BLOWER OR BY HAND, AND MUST PROVIDE 100% SOIL COVERAGE. IT CAN BE USED ON FROZEN GROUND, FORESTED AREAS, ON CUT AND FILL SLOPES AND ON ROADSIDE EMBANKMENTS.

EROSION CONTROL MIX MUST BE WELL-GRADED WITH AN ORGANIC COMPONENT THAT IS BETWEEN 50 AND 100% OF DRY WEIGHT, AND THAT IS COMPOSED OF FIBROUS AND ELONGATED FRAGMENTS. THE MINERAL PORTION OF THE MIX SHOULD BE NATURALLY INCLUDED IN THE PRODUCT WITH NO LARGER ROCKS (>4") OR LARGE AMOUNTS OF FINES (SILTS AND CLAYS). IN STUMP GRINDING, THE MINERAL SOIL ORIGINATES FROM THE ROOT BALL AND SHOULD NOT BE REMOVED BEFORE GRINDING. THE MIX SHOULD BE FREE OF REFUSE, MATERIAL TOXIC TO PLANT GROWTH OR UNSUITABLE MATERIAL (BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS).

WHEN USED AS MULCH, THE THICKNESS OF THE EROSION CONTROL MIX IS BASED UPON THE FOLLOWING:

LENGTH OF SLOPE	3:1 SLOPE OR LESS	BETWEEN 2:1 AND 3:1 SLOPE
LESS THAN 20 FT	2.0 IN.	4.0 IN.
BETWEEN 20 - 60 FT	3.0 IN.	5.0 IN.
BETWEEN 60 - 100 FT	4.0 IN.	6.0 IN.

CHEMICAL MULCHES AND SOIL BINDERS MAY BE USED AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL CONSULT WITH THE MANUFACTURER TO DETERMINE ADEQUATE APPLICATION RATES AND METHODS.

EROSION CONTROL BLANKETS AND MATS SHALL BE USED ON STEEP SLOPES AND IN THE BOTTOM OF GRASSED WATERWAYS, OR AS OTHERWISE DIRECTED BY THE ENGINEER. THE MAT SHALL BE INSTALLED WITH FIRM CONTINUOUS CONTACT WITH THE SOIL AND STAPLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

TEMPORARY MULCH SHALL BE INSPECTED FOLLOWING ANY SIGNIFICANT RAINFALL EVENT. IF LESS THAN 90% OF THE SOIL SURFACE IS COVERED BY MULCH, ADDITIONAL MULCH SHALL BE IMMEDIATELY APPLIED. ERISION CONTROL MATS AND MULCH ANCHORING MUST BE INSPECTED AFTER RAINFALL EVENTS FOR DISLOCATION OR FAILURE, AND REPAIRED IMMEDIATELY. INSPECTIONS SHALL TAKE PLACE UNTIL 95% OF THE SOIL SURFACE IS COVERED WITH PERMANENT VEGETATION. WHERE MULCH IS USED WITH ORNAMENTAL PLANTINGS, INSPECT PERIODICALLY THROUGHOUT THE YEAR TO DETERMINE IF MULCH IS MAINTAINING COVERAGE OF THE SOIL SURFACE, AND REPAIR AS NEEDED.

TEMPORARY VEGETATION SHALL BE ESTABLISHED ON SOILS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS. IF TEMPORARY VEGETATION CANNOT BE ESTABLISHED PRIOR TO OCTOBER 15, TEMPORARY MULCH SHALL BE APPLIED THROUGH THE WINTER AND TEMPORARY VEGETATION SHALL BE PLANTED AT THE BEGINNING OF THE GROWING SEASON THE FOLLOWING YEAR. TO PREPARE THE SEEDBED, THE CONTRACTOR SHALL APPLY FERTILIZER AT A RATE OF 600 POUNDS PER ACRE OF 10-10-10 (N-P205-K20) OR EQUIVALENT AND LIMESTONE AT A RATE OF 3 TONS PER ACRE, IF NECESSARY. LOOSEN SOIL TO A DEPTH OF 2 INCHES IN AREAS THAT HAVE BEEN COMPACTED BY CONSTRUCTION ACTIVITIES. GRASS SEED SHALL BE SELECTED BASED UPON THE TIME OF YEAR THE PLANTING WILL TAKE

SEED	LB. PER ACRE	RECOMMENDED SEEDING DATES
WINTER RYE	112	8/15 - 10/1
OATS	80	4/1 - 7/1 8/15 - 9/15
ANNUAL RYEGRASS	40	4/1 - 7/1

TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED TO MAINTAIN AT LEAST 95% VEGETATIVE COVER OF SOIL SURFACE. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES SHALL BE USED IN THE INTERIM SUCH AS TEMPORARY MULCH, FILTER BARRIERS, ETC.

2. SEDIMENT BARRIER BMPS

PLACE AS SUMMARIZED IN THE FOLLOWING TABLE

TEMPORARY SEDIMENT BARRIERS ARE INSTALLED ACROSS OR ALONG THE TOE OF A SLOPE AND INCLUDE ANY OF THE FOLLOWING:

FILTER BARRIER FENCE, ALSO CALLED SILT FENCE, SHALL BE INSTALLED WHERE SHOWN ON THE PLANS AND IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. THE FILTER FABRIC SHALL BE A PERVIOUS SHEET OF PROPYLENE, NYLON, POLYESTER OR ETHYLENE YARN AND SHALL PROVIDE A MINIMUM OF 6 MONTHS USABLE CONSTRUCTION LIFE INCLUDING PROTECTION AGAINST ULTRA-VIOLET LIGHT. THE HEIGHT OF THE FENCE SHALL NOT EXCEED 36 INCHES INSTALLED AND POST SPACING SHALL NOT EXCEED 6 FEET. JOINTS IN THE FENCE SHALL BE AVOIDED TO THE EXTENT POSSIBLE, AND IF NECESSARY SHALL BE SPLICED TOGETHER AT A SUPPORT POST WITH A MINIMUM 6 INCH OVERLAP. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP, AND THE BOTTOM 6-8 INCHES OF FABRIC SHALL BE "TOED-IN" TO THE TRENCH AND COMPACTED. THE TRENCH SHOULD BE UPHILL OF THE FABRIC PRIOR TO BURIAL.

EROSION CONTROL MIX BERMS ARE LINEAR BARRIERS COMPOSED OF EROSION CONTROL MIX AS SPECIFIED ABOVE. THE BERM MUST BE A MINIMUM OF 12 INCHES TALL AND 24 INCHES WIDE AT THE BASE IF UPHILL SLOPES ARE LESS THAN 5%. STEEPER SLOPES OR SLOPES GREATER THAN 20 FEET LONG MAY REQUIRE A LARGER WIDTH BERM. EROSION CONTROL MIX BERMS AT THE BASE OF A LONG OR STEEP SLOPE MAY ALSO REQUIRE A FILTER FENCE TO BE INSTALLED ON THE DOWNHILL SIDE OF THE BERM TO PROVIDE ADDITIONAL STABILIZATION AGAINST HIGH RUNOFF FLOWS.

<u>CONTINUOUS CONTAINED BERMS</u>, WHICH ARE ALSO REFERRED TO AS A FILTER SOCK, PROVIDES ADDITIONAL STABILITY TO AN EROSION CONTROL MIX BERM AND SHOULD BE USED IN FROZEN GROUND CONDITIONS OR IN AREAS THAT RECEIVE CONCENTRATED FLOWS.

SEDIMENT BARRIERS SHALL BE INSPECTED AFTER ANY SIGNIFICANT RAINFALL EVENT AND REPAIRED IMMEDIATELY IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE BARRIERS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR EDGES OF THE BARRIER, OR IF LARGE VOLUMES OF WATER ARE IMPOUNDED BEHIND THE BARRIER, IT MAY BE NECESSARY TO REPLACE THE BARRIER WITH A TEMPORARY STONE CHECK DAM. SEDIMENT SHALL BE REMOVED ONCE IT REACHES HALF THE BARRIER HEIGHT. AFTER THE BARRIER IS REMOVED, ANY REMAINING SILT SHALL EITHER BE REMOVED OR GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED.

3.TEMPORARY CHECK DAMS

STONE CHECK DAMS SHALL BE INSTALLED IN SWALES OR DRAINAGE DITCHES TO REDUCE STORMWATER VELOCITIES AS SHOWN ON THE PLANS. STONE CHECK DAMS ARE NOT EFFECTIVE IN REMOVING SEDIMENT AND SHOULD BE USED IN CONJUNCTION WITH SEDIMENT BARRIERS IDENTIFIED ABOVE. TEMPORARY CHECK DAMS MAY BE LEFT IN PLACE PERMANENTLY IN MOST CASES. CHECK DAMS SHOULD BE NO HIGHER THAN 24 INCHES, AND THE CENTER OF THE CHECK DAM MUST BE AT LEAST 6 INCHES LOWER THAN THE OUTSIDE EDGES. CHECK DAMS SHOULD BE SPACED SUCH THAT THE CREST OF THE DOWNSTREAM CHECK DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM CHECK DAM. CHECK DAMS IN A DRAINAGE DITCH OR WATERWAY SHOULD BE INSTALLED PRIOR TO DIRECTING RUNOFF TO THEM.

4. STORM DRAIN INLET PROTECTION

STORM DRAIN INLETS THAT ARE MADE OPERATIONAL BEFORE THEIR DRAINAGE AREA IS STABILIZED SHALL BE PROTECTED WITH A FILTER UNTIL THE DRAINAGE AREA IS EITHER PAVED OR STABILIZED WITH 95% VEGETATIVE GROWTH. THE FOLLOWING ARE ACCEPTABLE BMPS ASSOCIATED WITH STORM DRAIN INLET PROTECTION:

HAY BALE OR SILT FENCE INLET STRUCTURE CONSISTS OF HAY BALES OR SILT FENCE CONFIGURED AROUND A CATCH BASIN INLET FRAME AND INSTALLED ACCORDING TO THE METHODS OUTLINED ABOVE. THIS METHOD IS SUITABLE FOR OPEN PIPE (CULVERT) INLETS, FIELD INLETS OR ROAD INLETS THAT HAVE NOT YET BEEN PAVED.

MANUFACTURED SEDIMENT FILTERS ARE THE PREFERRED METHOD FOR PROTECTING CATCH BAS IN INLETS IN PAVED OR GRAVEL ROADWAYS. THE FILTERS TYPICALLY CONSIST OF A FABRIC OR OTHER PERVIOUS MATERIAL THAT IS PLACED ABOVE OR BELOW THE GRATE THAT TRAPS SEDIMENT ON THE SURFACE AND ALLOWS WATER TO FLOW THROUGH THE GRATE. CONSIDERATIONS SUCH AS WEATHER CONDITIONS, SLOPES, TRIBUTARY WATERSHED AREA AND EXPECTED SEDIMENT ACCUMULATION SHOULD BE FACTORED INTO MAKING A DECISION ON ANY PARTICULAR PRODUCT, AND THE MANUFACTURER'S RECOMMENDATIONS ON INSTALLATION AND MAINTENANCE SHALL BE STRICTLY ADHERED TO.

EROSION & SEDIMENTATION CONTROL PLAN:

- 1. ALL EROSION AND CONTROL MEASURES WILL BE INSTALLED AT THE PROJECT SITE PRIOR TO CONSTRUCTION WHEREEVER
- 2. AN ANTI-TRACKING APRON WILL BE INSTALLED AT THE ENTRANCE TO THE CONSTRUCTION SITE IN ORDER TO PREVENT THE TRANSPORT OF SEDIMENTS OFF THE CONSTRUCTION SITE BY TRUCK AND CONSTRUCTION EQUIPMENT TRAFFIC.
- 3. AN EROSION CONTROL SYSTEM SHALL BE INSTALLED AROUND ALL ON-SITE STOCKPILES OF SOIL

STABILIZED, AS REQUIRED BY FIELD CONDITIONS

5. TEMPORARY SEDIMENT TRAPS WILL BE INSTALLED AS NECESSARY DURING CONSTRUCTION ACTIVITIES. ALL TEMPORARY STORMWATER DISCHARGE WILL BE DIRECTED TO THESE TRAPS.

4. DUST CONTROL MEASURES WILL BE APPLIED DURING THE CONSTRUCTION PERIOD UNTIL ALL DISTURBED AREAS HAVE BEEN

- ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED OR REPLACED DURING CONSTRUCTION AS NECESSARY OR AS REQUIRED BY THE ENGINEER OR TOWN.
- 7. ALL DISTURBED AREAS OUTSIDE OF PAVED AND STONE AREAS ARE TO RECEIVE A MINIMUM OF 4" OF TOPSOIL AND SEEDED.

5. STABILIZED CONSTRUCTION ENTRANCE/EXIT

TO REDUCE THE TRACKING OF SEDIMENT ONTO ROADWAYS, A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED AT ALL POINTS OF EGRESS WHERE VEHICLES MAY TRAVEL FROM THE PROJECT SITE TO A PUBLIC ROAD OR OTHER PAVED AREA. THE STONE PAD SHALL CONSIST OF A MINIMUM 6-INCH DEPTH OF 2-3 INCH CRUSHED STONE, AND SHALL BE PLACED ON A GEOTEXTILE FABRIC. THE PAD SHALL EXTEND AT LEAST 50 FEET INTO THE PROJECT SITE AND BE A MINIMUM OF 15 FEET WIDE. THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, AND THE CONTRACTOR SHALL SWEEP OR WASH PAVEMENT AT EXITS THAT HAVE EXPERIENCED ANY MUD-TRACKING.

6. DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST ON THE PROJECT SITE AND ON ADJACENT ROADWAYS. EXPOSED SOIL SURFACES SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST. GRAVEL SURFACES SHALL EITHER BE TREATED WITH AN APPLICATION OF CALCIUM CHLORIDE OR COVERED WITH CRUSHED STONE IF DUST CONTROL BECOMES DIFFICULT WITH NORMAL WATER APPLICATIONS.

7. LAND GRADING AND SLOPE PREPARATION

GRADING SHALL BE PLANNED SO AS TO MINIMIZE THE LENGTH OF TIME BETWEEN INITIAL SOIL EXPOSURE AND FINAL GRADING. ON LARGE PROJECTS THIS SHOULD BE ACCOMPLISHED BY PHASING THE OPERATION AND COMPLETING THE FIRST PHASE UP TO FINAL GRADING AND SEEDING BEFORE STARTING THE NEXT PHASE. ANY EXPOSED AREA THAT WILL NOT BE FINISH GRADED WITHIN 14 DAYS SHALL BE TREATED WITH MULCH OR PLANTED WITH TEMPORARY VEGETATION. PROVISIONS SHALL BE MADE TO SAFELY CONVEY SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO ENSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASS SHALL NOT BE STEEPER THAN 2:1. AREAS TO BE FILLED SHALL BE CLEARED, GRUBBED AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS OR OTHER OBJECTIONABLE MATERIALS. AREAS SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 INCHES PRIOR TO PLACEMENT OF TOPSOIL. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES, ALL FILLS SHALL BE PLACED AND COMPACTED IN LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS. FILL MATERIAL SHALL BE FREE OF STUMPS, BUILDING DEBRIS AND OTHER OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY LIFTS. FROZEN MATERIAL OR SOFT, MUCKY OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILL SLOPES OR STRUCTURAL FILLS. FILL SHALL NOT BE PLACED ON A FROZEN FOUNDATION. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED APPROPRIATELY. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY FOLLOWING FINISHED GRADING.

8. TOPSOIL

IF POSSIBLE, TOPSOIL SHALL BE STOCKPILED ON THE PROJECT SITE AND REUSED. HIGH QUALITY TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM, SILT LOAM, SANDY CLAY LOAM, CLAY LOAM), AND SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS AND NOXIOUS WEEKS. AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING WITH SUBSOIL. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4 INCHES. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS. IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL, BUT UNDUE COMPACTION IS TO BE AVOIDED.

9. PERMANENT VEGETATION

TO PREPARE THE SEEDBED, APPLY 10-20-20 FERTILIZER AT A RATE OF 800 POUNDS PER ACRE AND GROUND LIMESTONE AT A RATE OF 3 TONS PER ACRE. WORK THE FERTILIZER AND LIMESTONE INTO THE TOPSOIL TO A DEPTH OF 4 INCHES AND REMOVE ANY STONES, ROOTS OR OTHER VISIBLE DEBRIS. SELECT A SEED MIXTURE THAT IS APPROPRIATE FOR THE SOIL TYPE AND MOISTURE CONTENT AS FOUND AT THE SITE, AND FOR THE AMOUNT OF SUN EXPOSURE AND FOR LEVEL OF USE. REFER TO THE USDA SOIL CONSERVATION SERVICE OR THE LOCAL SOIL AND WATER CONSERVATION DISTRICT FOR APPROPRIATE SEED MIXTURES. APPLY SEED UNIFORMLY IN ACCORDANCE WITH SUPPLIER RECOMMENDATIONS AND IMMEDIATELY COVER WITH MULCH AS DESCRIBED IN THE TEMPORARY MULCHING SECTION OF THIS PLAN.

HYDROSEEDING SHALL BE DONE IN ACCORDANCE WITH SUPPLIERS RECOMMENDATIONS.

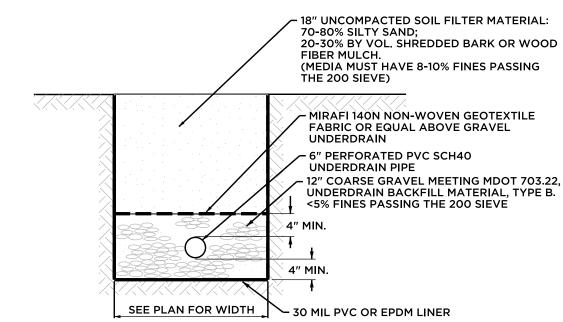
SOD STRIPS SHALL BE LAID AT RIGHT ANGLES TO DIRECTION OF SLOPE OR FLOW OF WATER STARTING AT LOWEST ELEVATION. JOINTS SHALL BE STAGGERED, AND ALL STRIPS SHALL BE ROLLED OR TAMPED INTO PLACE. ON SLOPES, SOD SHALL BE ANCHORED WITH STAPLES, WIRE OR PINS. IRRIGATE SODDED AREA IMMEDIATELY AFTER INSTALLATION.

10. PERMANENT MULCHING

PERMANENT MULCH IS A LONG TERM COVER THAT PROVIDES A GOOD BUFFER AROUND DISTURBED AREAS. THE EROSION CONTROL MIX SHALL CONSIST PRIMARILY OF ORGANIC MATERIAL AND MAY INCLUDE SHREDDED BARK, STUMP GRINDINGS OR COMPOSTED BARK. WOOD CHIPS, GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS ARE NOT ACCEPTABLE. THE EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4 INCHES IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAINMANTS AND MATERIAL TOXIC TO PLANT GROWTH.

11. RIPRAP SLOPE STABILIZATION

RIPRAP STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. THE DEPTH OF STONE SHALL BE A MINIMUM OF 2.2 TIMES THE MAXIMUM STONE DIAMETER. A GRAVEL OR GEOTEXTILE FILTER BLANKET SHALL BE PLACED BETWEEN THE RIPRAP AND UNDERLYING SOIL SURFACE. GRAVEL FILTER BLANKETS SHALL MEET MDOT TYPE-C UNDERDRAIN MATERIAL SPECIFICATIONS AND BE AT LEAST 6 INCHES THICK. GEOTEXTILE FILTER BLANKETS SHALL BE SPECIFIED BASED ON SITE CONDITIONS. RIPRAP SLOPES SHALL BE TOED INTO THE BASE OF THE EMBANKMENT BY EXCAVATING A TRENCH AT THE BOTTOM OF THE SLOPE AND INSTALLING A STABLE BASE OF RIPRAP TO GRADE.



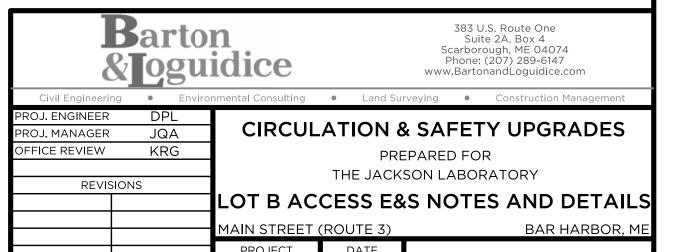
NOTES

- UNDERDRAIN SOIL FILTER SHALL BE SEEDED WITH A DROUGHT-TOLERANT GRASS SEED MIX AND LIGHTLY RAKED INTO THE SOIL MEDIA FILTER SURFACE. A LIGHT HAY MULCH APPLICATION WILL HELP IMPROVE SEED ESTABLISHMENT.
- CONTRACTOR SHALL BLEND ALL SPECIFIED SOIL FILTER MEDIA MATERIALS OFF-SITE AND PRIOR
 TO PLACEMENT.
 FILTER SOIL MEDIA AND LINDERDRAIN BEDDING MATERIAL MUST BE COMPACTED TO BETWEEN
- 3. FILTER SOIL MEDIA AND UNDERDRAIN BEDDING MATERIAL MUST BE COMPACTED TO BETWEEN 90% AND 92% STANDARD PROCTOR. THE BED SHOULD BE INSTALLED IN AT LEAST 2 LIFTS OF 9" TO PREVENT POCKETS OF LOOSE MEDIA.
- 4. CONTRACTOR SHALL LIMIT COMPACTION OF SUBGRADE OR SOIL FILTER AREAS DURING EXCAVATION.
- 5. SOIL FILTER MEDIA SHALL BE PLACED AND VERY LIGHTLY COMPACTED PRIOR TO PLACEMENT OF MULCH. THE SOIL FILTER MEDIA SURFACE SHALL BE FLAT IN ORDER TO REDUCE THE POTENTIAL FOR CHANNELING WATER ACROSS THE SURFACE MEDIA.

SOIL FILTER & UNDERDRAIN DETAIL NOT TO SCALE

4531-001

PERMIT PLAN SET NOT RELEASED FOR CONSTRUCTION



SHEET NO. 3 OF 3



STATE OF MAINE DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY

177 STATE HOUSE STATION AUGUSTA, MAINE 04333

JANET T. MILLS GOVERNOR AMANDA E. BEAL COMMISSIONER

March 18, 2020

Jennifer Hodgens Woodard & Curran One Merchants Plaza, Suite 501 Bangor, ME 04401

Via email: jhodgens@woodardcurran.com

Re: Rare and exemplary botanical features in proximity to: #L15327-26 The Jackson Laboratory, Multi-Unit Residential Project, Bar Harbor, Maine

Dear Ms. Hodgens:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received February 18, 2020, with details provided February 20, 2020 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Bar Harbor, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

The Jackson Laboratory Property includes areas designated as Pitch Pine Woodland, a rare natural community type in Maine (see table below, attached map and factsheet). If any work is planned in those mapped Pitch Pine Woodland areas located west of Schooner Head Rd., please contact MNAP for further recommendations to avoid or minimize adverse impacts. It appears that there may also be additional Pitch Pine Woodland in areas of the current Multi-unit Residences project, east of Schooner Head Road at Tax Map 253 Lot 11. MNAP recommends a field survey by a qualified field biologist to the project area to survey for Pitch Pine Woodland. Please contact me via email, kristen.puryear@maine.gov, if you would like to schedule an MNAP field visit.

Feature	State	State	Global	Occurrence	Site / Notes
	Status	Rank	Rank	Rank	
Pitch Pine Woodland	N/A	S3	G2	E Extant	West of Compass Harbor
Pitch Pine Woodland	N/A	S3	G2	H Historical	Huguenot Head

If a field survey of the project area is conducted, please also refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM
90 BLOSSOM LANE, DEERING BUILDING



PHONE: (207) 287-8044 WWW.MAINE.GOV/DACF/MNAP Letter to Woodard & Curran Comments RE: The Jackson Lab, Bar Harbor March 18, 2020 Page 2 of 2

may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

The Maine Natural Areas Program (MNAP) is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine Natural Areas Program has instituted a fee structure of \$75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for \$225.00 for three hours of our services.

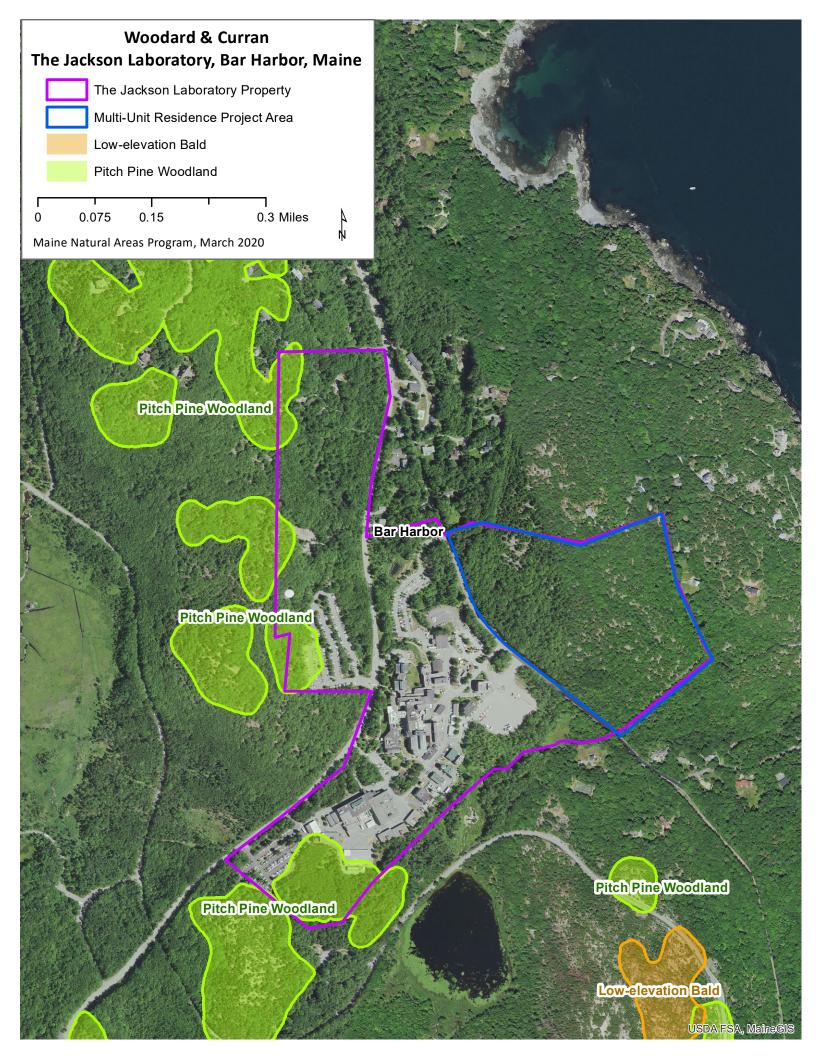
Thank you for using MNAP in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Krit Pung

Kristen Puryear | Ecologist | Maine Natural Areas Program

207-287-8043 | kristen.puryear@maine.gov



Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Acadian Quillwor	t					
	SC	S2	G3	1995-08-11	3	Open water (non-forested, wetland)
Alpine Blueberry						
	SC	S2	G4G5	2015-08-19	4	Alpine or subalpine (non-forested, upland),Rocky coastal (non-forested, upland)
Birch - Oak Rocky	y Woodland					
	<null></null>	S3	G3G5	2004-12-10	15	Rocky summits and outcrops (non-forested, upland), Dry barrens (partly forested, upland)
	<null></null>	S3	G3G5	2004-12-09	17	Rocky summits and outcrops (non-forested, upland), Dry barrens (partly forested, upland)
	<null></null>	S3	G3G5	2004-12-09	16	Rocky summits and outcrops (non-forested, upland), Dry barrens (partly forested, upland)
	<null></null>	S3	G3G5	1999-09-15	11	Rocky summits and outcrops (non-forested, upland), Dry barrens (partly forested, upland)
	<null></null>	S3	G3G5	1999-08-26	12	Rocky summits and outcrops (non-forested, upland), Dry barrens (partly forested, upland)
	<null></null>	S3	G3G5	2004-12-09	14	Rocky summits and outcrops (non-forested, upland), Dry barrens (partly forested, upland)
Bog Bedstraw						
	SC	S2	G5	1998-08-26	16	Conifer forest (forest, upland)
Bush's Sedge						
	PE	SX	G4	1898-07-22	1	Open wetland, not coastal nor rivershore (non-forested, wetland)
Canada Mountain	-ricegrass					
	SC	S2	G4G5	1897-07-14	10	Dry barrens (partly forested, upland)
Comb-leaved Mer	maid-weed					
	E	S1	G5	1938-10-02	4	Open wetland, not coastal nor rivershore (non-forested, wetland)
	E	S1	G5	2004-11-04	5	Open wetland, not coastal nor rivershore (non-forested, wetland)

Maine Natural Areas Program Page 1 of 5

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	Е	S1	G 5	1937-09	3	Open wetland, not coastal nor rivershore (non-forested, wetland)
Dune Grassland						
	<null></null>	S2	G4?	2009-05-15	10	Rocky coastal (non-forested, upland)
Jack Pine Woodla	ınd					
	<null></null>	S3	G3G5	1999-08-27	9	Conifer forest (forest, upland), Dry barrens (partly forested, upland)
Low-elevation Ba	ld					
	<null></null>	S3	GNR	1998-07-15	3	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	2004-12-09	20	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	2004-12-10	22	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	1997-08-02	18	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	2004-12-10	23	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	1998-08-04	19	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	2004-12-09	21	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	1998-08-06	14	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	GNR	2004-12-10	24	Rocky summits and outcrops (non-forested, upland)
Maritime Spruce	- Fir Forest					
	<null></null>	S4	G4G5	1996-06-11	18	Conifer forest (forest, upland)
Mountain-laurel						
	SC	S2	G5	1890	26	Conifer forest (forest, upland), Hardwood to mixed forest (forest, upland)
Mountain Firmos	s					
	SC	S2	G5	2015-08-19	10	Rocky summits and outcrops (non-forested, upland), Alpine or subalpine (non-forested, upland)
Mountain Sandwa						subarpine (non-toresteu, upianu)

Mountain Sandwort

Maine Natural Areas Program Page 2 of 5

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	SC	S3	G5	1992-07-01	16	Rocky summits and outcrops (non-forested, upland), Alpine or subalpine (non-forested, upland)
	SC	S3	G5	2015-08-19	22	Rocky summits and outcrops (non-forested, upland), Alpine or subalpine (non-forested, upland)
	SC	S3	G5	1996-06-12	39	Rocky summits and outcrops (non-forested, upland), Alpine or subalpine (non-forested, upland)
	SC	S3	G5	1989	40	Rocky summits and outcrops (non-forested, upland), Alpine or subalpine (non-forested, upland)
Nantucket Shadbı	ush					
	Т	S2	G3Q	1991-05-15	6	Dry barrens (partly forested, upland), Non-tidal rivershore (non-forested, seasonally wet), Old field/roadside (non-forested, wetland or upland)
	Т	S2	G3Q	2011-05-31	9	Dry barrens (partly forested, upland), Non-tidal rivershore (non-forested, seasonally wet), Old field/roadside (non-forested, wetland or upland)
Northern Bog Sed	ge					
	SC	S2	G5	1997-08-29	13	Conifer forest (forest, upland),Forested wetland
Northern Reed Gr	ass					
	E	S1	G5T5	1988	3	Rocky coastal (non-forested, upland)
	E	S1	G5T5	1986	9	Rocky coastal (non-forested, upland)
Pitch Pine Woodla	and					
	<null></null>	S3	G2	1997-08-21	13	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	G2	1999-09-02	14	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	G2	1999-09-01	24	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	G2	2004-12-09	27	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	G2	2004-12-09	18	Rocky summits and outcrops (non-forested, upland)
	<null></null>	S3	G2	1998-08-04	23	Rocky summits and outcrops (non-forested, upland)

Maine Natural Areas Program Page 3 of 5

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	<null></null>	S3	G2	2004-12-09	26	Rocky summits and outcrops (non-forested, upland)
Prototype Quillwo	ort					
	T	S1	G2	1992-09-19	1	Open water (non-forested, wetland)
Red and White Pi	ne Forest					
	<null></null>	S3	G3G4	1997-09-10	19	Conifer forest (forest, upland)
Secund Rush						
	Т	S1	G5?	2004-09-21	4	Rocky summits and outcrops (non-forested, upland)
Smooth Sandwort	t					
	SC	S3	G4	1996-06-27	21	Rocky summits and outcrops (non-forested, upland)
	SC	S3	G4	1996-06-19	22	Rocky summits and outcrops (non-forested, upland)
	SC	S3	G4	1998-08-04	27	Rocky summits and outcrops (non-forested, upland)
	SC	S3	G4	1998-08-04	30	Rocky summits and outcrops (non-forested, upland)
	SC	S3	G4	1998-08-04	31	Rocky summits and outcrops (non-forested, upland)
Spruce - Fir - Nor	thern Hard	woods Ecosys	tem			
	<null></null>	S5	GNR	1999	21	Conifer forest (forest, upland), Hardwood to mixed forest (forest, upland)
Swarthy Sedge						
	E	S2	G5	1899-07-17	9	Rocky coastal (non-forested, upland)
	E	S2	G5	1897-07-12	11	Rocky coastal (non-forested, upland)
	E	S2	G5	1883-08-16	3	Rocky coastal (non-forested, upland)
	E	S2	G5	1898-08-17	6	Rocky coastal (non-forested, upland)
	E	S2	G5	2003-10	24	Rocky coastal (non-forested, upland)
	E	S2	G5	1899-07-22	10	Rocky coastal (non-forested, upland)

Maine Natural Areas Program

Page 4 of 5

www.maine.gov/dacf/mnap

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	E	S2	G5	1891-06-24	5	Rocky coastal (non-forested, upland)
White Cedar Wood	lland					
	<null></null>	S2	GNR	1996-06-27	1	Conifer forest (forest, upland), Dry barrens (partly forested, upland)

Maine Natural Areas Program Page 5 of 5 www.maine.gov/dacf/mnap

Pitch Pine Woodland

State Rank S3

Community Description

These very open to semi open woodlands (25-65% canopy, occasionally to 75%) are dominated by pitch pine, often with a much smaller component of red oak, red or white pine, or black or red spruce. The well spaced pines allow a substantial amount of light to reach the understory. The sapling/shrub layer is usually <40% cover, with smaller pitch pines, mountain holly, or black huckleberry. The herb layer is well developed (>30% cover) and strongly dominated by dwarf, mostly heath, shrubs. At some sites, broom-crowberry is a prominent species. Herbs contribute <10% cover, and the composition varies. The bryoid layer may be 0-50% cover (rarely more) and is typically dominated by reindeer lichens.

Soil and Site Characteristics

Typical sites are ledges or rock outcrops in coastal areas. They may be flat to gently sloping, at elevations up to 1500'. Soils are usually very thin, consisting of a coarse mineral fraction or a layer of poorly decomposed duff over bedrock, with pH 4.6-5.4. Many sites have evidence of past fire.



Pitch Pine Cones

Diagnostics

These pitch pine dominated woodlands (25-65% canopy cover) grow on bedrock with very little soil.

Similar Types

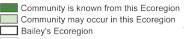
Pitch Pine - Scrub Oak Barrens, Pitch Pine - Heath Barrens, and Pitch Pine Dune Woodlands differ in that they develop on sandy outwash or dunes, rather than on thin soil over bedrock. Pitch Pine Bogs are wetlands, with wetland plants, including peat mosses.

Conservation, Wildlife, and Management Considerations

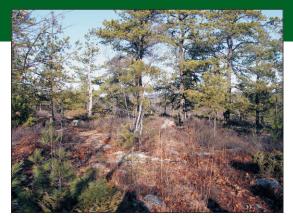
This community appears to be relatively stable in Maine, with little habitat conversion. Fire has apparently played

Location Map









Pitch Pine Woodland

a role in maintaining this woodland type by preventing the invasion of fire sensitive hardwood trees and shrubs. The suppression of fire may result in the conversion of these woodlands to a different type. Many sites receive recreational use. In a few locations use is heavy enough to have degraded the community, but most foot traffic recreational use is compatible. Communications towers could impact some sites on mid-elevation summits.

Birds such as the pine warbler and prairie warbler may prefer this open habitat. This community type may include rare moths that utilize pitch pines as a larval host plant such as the oblique zale, southern pine sphinx, and pine-devil moth, a historical species for Maine.

Distribution

Coastal Maine, east to Mount Desert Island; extending southward along the Atlantic coastal plain and Appalachian foothills.

Landscape Pattern: Small Patch; size range variable from a few acres to nearly 100 acres.

Characteristic Plants

These plants are frequently found in this community type. Those with an asterisk are often diagnostic of this community.

Canopy

Red spruce Pitch pine* Red oak* Red pine* White pine*

Sapling/shrub

Black huckleberry* Gray birch* Mountain holly* Pitch pine* Red spruce

Dwarf Shrub

Black huckleberry* Broom-crowberry* Lowbush blueberry* Rhodora* Sheep laurel*

Herb

Bracken fern

Bryoid

Reindeer lichen

Associated Rare Plants

Mountain sandwort Smooth sandwort

Associated Rare Animals

Pine-devil moth Southern pine sphinx

Examples on Conservation Lands You Can Visit

- Bald Head Preserve Sagadahoc Co.
- Champlain Mountain, Acadia National Park - Hancock Co.
- Dorr Mountain, Acadia National Park - Hancock Co.
- Reid State Park Sagadahoc Co.

STATE RARITY RANKS

- Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.
- S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- **S3** Rare in Maine (20-100 occurrences).
- **S4** Apparently secure in Maine.
- S5 Demonstrably secure in Maine.
- SU Under consideration for assigning rarity status; more information needed on threats or distribution.
- **SNR** Not yet ranked.
- **SNA** Rank not applicable.
- S#? Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).
- **Note**: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

- G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.
- G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.
- **G3** Globally rare (20-100 occurrences).
- **G4** Apparently secure globally.
- G5 Demonstrably secure globally.
- **GNR** Not yet ranked.
- **Note**: Global Ranks are determined by NatureServe.

STATE LEGAL STATUS

- Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.
- **E** ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.
- THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

- SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.
- PE Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.



MAINE HISTORIC PRESERVATION COMMISSION 55 CAPITOL STREET 65 STATE HOUSE STATION AUGUSTA, MAINE 04333

KIRK F. MOHNEY DIRECTOR

December 28, 2020

Ms. Sarah Nicholson Woodard & Curran 80 Exchange Street Suite 400 Bangor, ME 04401

Project: MHPC #2029-20

Jackson Laboratory; West Side of Route 3; Woodlands Lane

Proposed Housing Project

Town: Bar Harbor, ME

Dear Ms. Nicholson:

In response to your recent request, I have reviewed the information received December 21, 2020 to initiate consultation on the above referenced project in accordance with the requirements of Maine Department of Environmental Protection.

Based on the information provided, I have concluded that there are no National Register eligible properties on or adjacent to the parcels. In addition, the project area is not considered sensitive for archaeological resources.

Please contact Megan M. Rideout of our staff, at megan.m.rideout@maine.gov or 207-287-2992, if we can be of further assistance in this matter.

Sincerely,

Kirk F. Mohney

State Historic Preservation Officer

FAX: (207) 287-2335



STATE OF MAINE DEPARTMENT OF INLAND FISHERIES & WILDLIFE 284 STATE STREET 41 STATE HOUSE STATION AUGUSTA ME 04333-0041



March 16, 2020

Sarah Nicholson Woodard & Curran One Merchants Plaza, Suite 501 Bangor, ME 04401

RE: Information Request – Jackson Laboratory Lands, Bar Harbor

Dear Sarah:

Per your request received on February 21, 2020, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *Jackson Laboratory Lands* in Bar Harbor.

Our Department has not mapped any Essential Habitats in the vicinity of the Jackson Laboratory Lands.

Endangered, Threatened, and Special Concern Species

<u>Bats</u> – Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season.

It is possible that other rare species may be resident or transient in the project area based on location, habitats present, and life history requirements, including one or more rare species of migratory birds during spring and fall migrations. Therefore, the list above should not be considered all-inclusive.

Significant Wildlife Habitat

PHONE: (207) 287-5254

<u>Significant Vernal Pools</u> - At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed so it is possible that this habitat could be present in the area.

Letter to Sarah Nicholson, Woodard & Curran Comments RE: Jackson Laboratory, Bar Harbor March 16, 2020

Fisheries Habitat

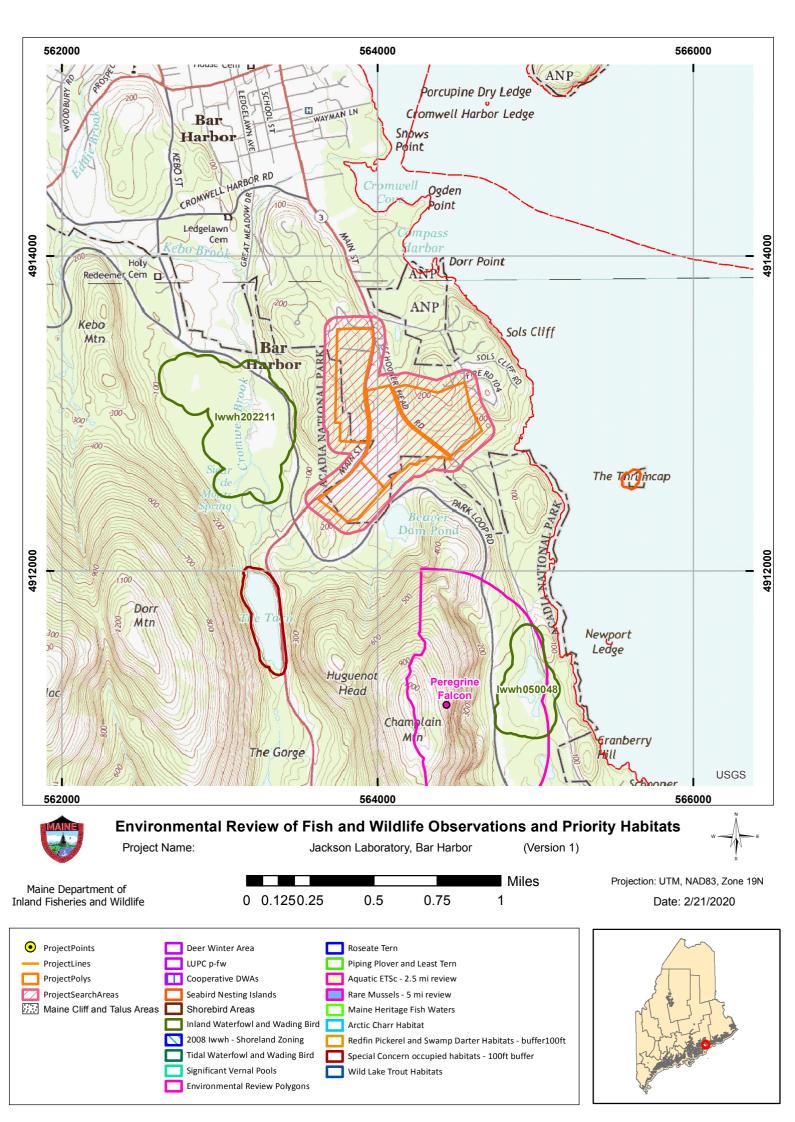
The parcel search area contains several streams. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with our Agency as well as the municipality and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele Wildlife Biologist



ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- <u>Size</u>: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- <u>Condition</u>: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- <u>Landscape context</u>: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

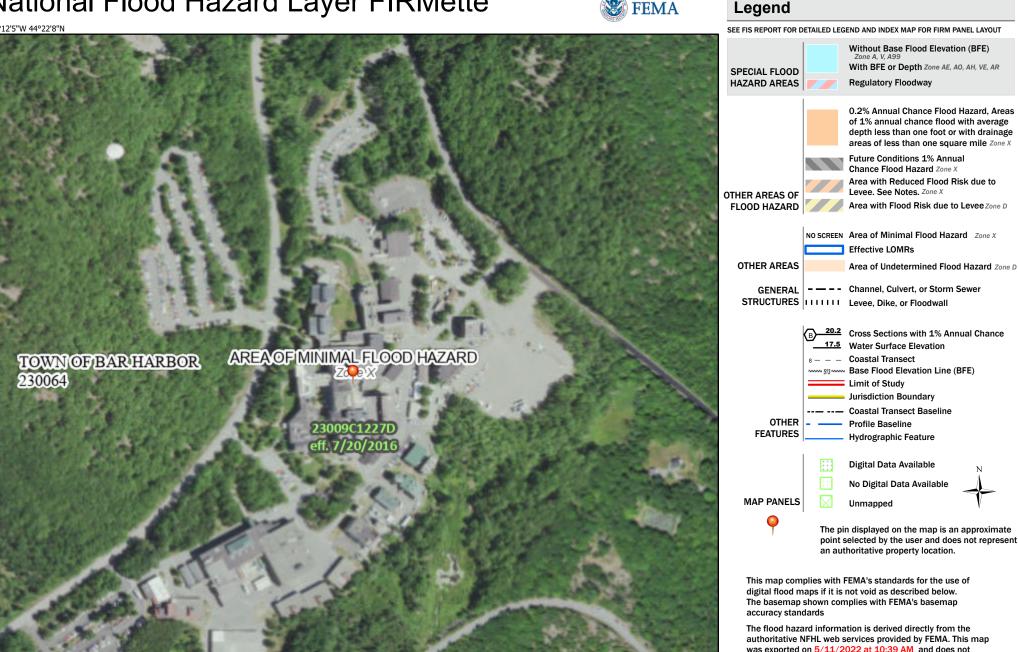
These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: Element Occurrence Ranks are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species! http://www.maine.gov/dacf/mnap

National Flood Hazard Layer FIRMette





authoritative NFHL web services provided by FEMA. This map was exported on 5/11/2022 at 10:39 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Feet 1:6.000 250 500 1,000 1,500 2.000

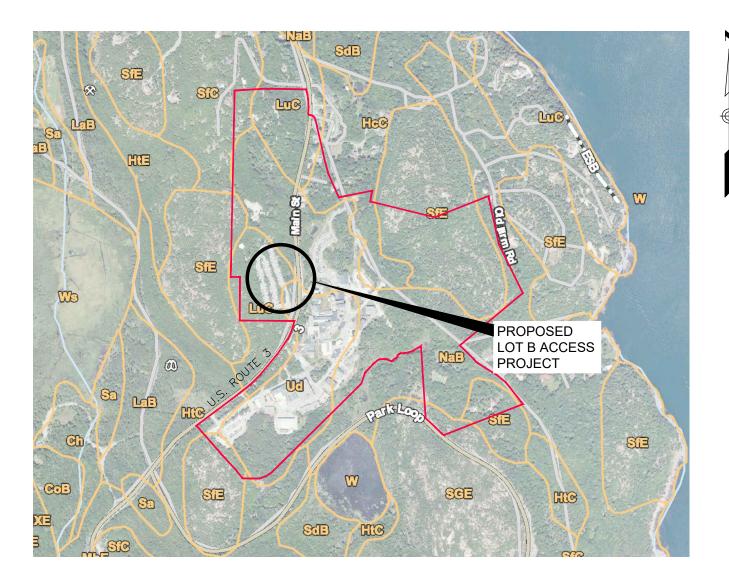
Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

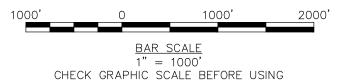


125-66.J.(15) MEDIUM DENSITY SOILS SURVEY

The Checklist for this Site Plan Review calls for a medium-density soils survey. Attached is a copy of the USDA Soil Conservation Service Map as Figure 10-1.

S. W. Cole conducted three test pits along the proposed route of the new access driveway. Much of the drive will be built on fill and so depth to bedrock is not a problem. The lower end of the drive (approximately 200 feet) will be in cut and the test pits and ledge outcroppings illustrated on the attached Figure 10-2 indicate that ledge removal, likely to include blasting, may be necessary to construct this part of the Project.





SOILS LEGEND

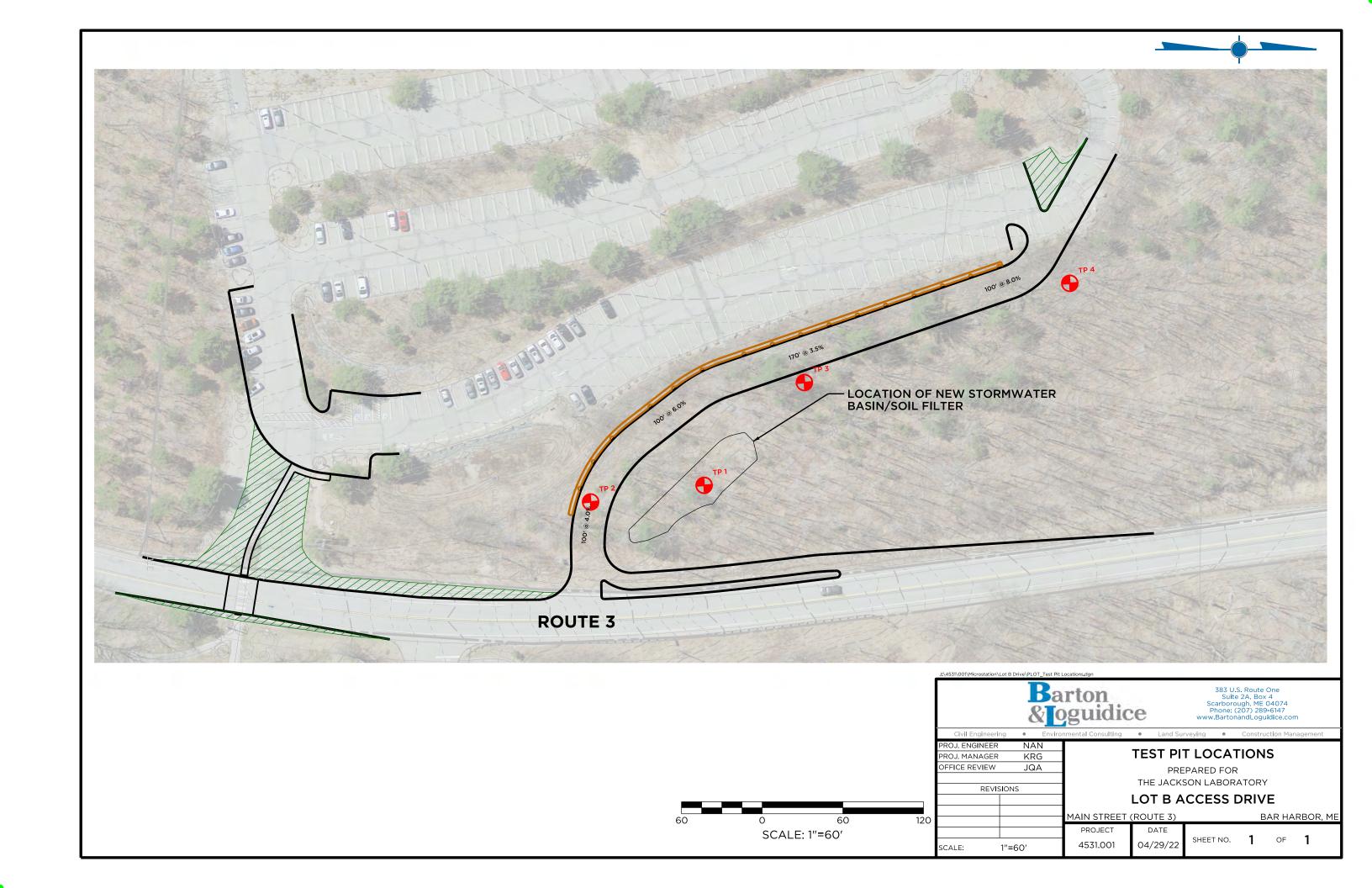
Map Unit Symbol	Map Unit Name
Ch	Charles silt loam, 0 to 2 percent slopes, occasionally flooded
СоВ	Colton gravelly sandy loam, 0 to 8 percent slopes
HcC	Hermon-Colton-Rock outcrop complex, 3 to 15 percent slopes, very stony
HtC	Hermon-Monadnock complex, 8 to 15 percent slopes, very stony
HtE	Hermon-Monadnock complex, 15 to 45 percent slopes, very stony
LaB	Lamoine silt loam, 3 to 8 percent slopes
LuC	Lyman-Tunbridge complex, 0 to 15 percent slopes, very stony
MhE	Monadnock-Hermon complex, 15 to 45 percent slopes, extremely bouldery
MXE	Monadnock-Hermon-Peru complex, very hilly, extremely bouldery
NaB	Naskeag-Schoodic complex, 0 to 8 percent slopes, very stony
Sa	Scantic silt loam, 0 to 3 percent slopes
SdB	Scantic-Lamoine complex, 0 to 8 percent slopes, very stony
SfC	Schoodic-Rock outcrop complex, 0 to 15 percent slopes
SfE	Schoodic-Rock outcrop complex, 15 to 65 percent slopes
SGE	Schoodic-Rock outcrop-Lyman complex, 15 to 60 percent slopes
Ud	Udorthents-Urban land complex
W	Water bodies
Ws	Wonsqueak and Bucksport mucks, 0 to 2 percent slopes

SOILS MAP

THE JACKSON LABORATORY
BAR HARBOR, MAINE
TOWN OF BAR HARBOR
SITE PLAN REVIEW APPLICATION

JOB N0:232695.03 DATE: MAY 2022 SCALE: 1"=1000'

SOURCE: UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE





TEST PIT LOGS

CLIENT: Barton & Loguidice, LLC

PROJECT: Proposed JAX Lot B Access Road

LOCATION: 600 Main Street, Bar Harbor, Maine

PROJECT NO.: 22-0494 LOGGED BY: ___ Nate Strout

CONTRACTOR:

John Goodwin Jr. Construction

EQUIPMENT:

		5				— Ca	ase C	X 145C	
				ST PIT TP-2					
	4/18/2022	_ LOCATION: _ See Exploration Lo		SURFACE ELEVATION (FT): 162' +/-		COMPL	ETIC	N DEPTH	(FT): 5.6
NATER LE	VEL DEPT	HS (FT): Light seepage at 5.3 feet	t +/-	REMARKS:		T			
D 41-	Graphic Log					01-	ω.	Sample	Ciald / La
Depth (feet)	apł Log		Stratum	Description	H ₂ 0 Depth	Sample No.	Type	Depth	Field / La Test Dat
(ICCI)	G I				Deptil	INO.	-	(ft)	1 CSt Da
		Topsoil							
		0.3 Brown silty gravelly SAN	ND with cob	bles					
-									
						S-1	X	1.5-2.5	
_							X	1	
							\mathbb{Z}	1	
		2.6 Gray SILT and SAND s	omo graval	with cobbles (Glacial Till)	1			1	
		Glay SILT and SAND, s	some graver	With Cobbles (Glacial Till)					
_									
5 –									
				at 5.6 feet	•				
			(Probabl	e Bedrock)					
				OT DIT TO 0					
			IE:	ST PIT TP-3					
· ·	4/18/2022	_ LOCATION: _ See Exploration Lo	ocation Plan	SURFACE ELEVATION (FT): 165' +/-		COMPL	ETIC	N DEPTH	(FT): 2.4
WATERLE	VEL DEPT	HS (FT): No free water observed		REMARKS:	T	I			
Depth	Graphic Log				H ₂ 0	Sample	Φ	Sample	Field / La
(feet)	rap Log		Stratum	Description	Depth	No.	Type	Depth	Test Dat
` ,	9				,		·	(ft)	
		Topsoil							
_		1.0 Red-brown silty gravelly	SAND with	cobbles	1				
-									
			D. f	-10 Afr-1					
				at 2.4 feet e Bedrock)					
			(i lobabi	e bedrock)					
			TO NOTES SYMBOLS:		ket Penetro	meter Stren	gth, k	rips/sq.ft.	
have been	made at time	and under conditions stated.	O I MIDULO:						
	o of arounds	iter may occur due to other factors		▼ After Digging					
		time measurements were made.		± 1 mo. 5 againg					



TEST PIT LOGS

CLIENT: Barton & Loguidice, LLC

PROJECT: Proposed JAX Lot B Access Road

LOCATION: 600 Main Street, Bar Harbor, Maine

PROJECT NO.: _ LOGGED BY: __

22-0494 Nate Strout

CONTRACTOR:

John Goodwin Jr. Construction

EQUIPMENT: Case CX 145C

FST	PIT	TP ₋ 4	

COMPLETION DEPTH (FT): 0.0 4/18/2022 LOCATION: See Exploration Location Plan SURFACE ELEVATION (FT): 165' +/-WATER LEVEL DEPTHS (FT): REMARKS: No free water observed

Graphic Log Depth (feet)

Stratum Description

H₂0 Depth

Sample Sample Depth No. (ft)

Field / Lab Test Data

0.0

Refusal at 0 feet (Probable Bedrock)

TEST PIT 22-0494.GPJ SWCE TEMPLATE.GDT 4/19/22



125-66.J.(22) BUFFERING AND SCREENING

The existing vegetation in the ROW along the front of the site will provide significant buffering of the Project from Route 3. The fill slope created by the road grading will be planted with native vegetation and allowed to naturalize. No other landscaping is proposed.

As documented on the Checklist, waivers are requested for this Exhibit.



125-66.J.(44) STREETS, SIDEWALKS AND ACCESS

Figure 9-3 provides the design set for the proposed Project. The Project comprises a new driveway, the conversion of an old driveway into a sidewalk and grassed area, and some minor paving to allow for reconfiguration of several parking spaces. These improvements will be asphalt paving. The bituminous paving detail is provided on Sheet 1 of 3 in the design set.

The first 50' of the driveway off of Route 3 is graded to 4%, which meets the ordinance standard that the first 25' of a driveway does not exceed a 5% grade.

No streets are proposed.

As documented on the Checklist, waivers are requested for this Exhibit.



125-66.K ASSESSOR'S CERTIFICATION OF STREET NAMES

No streets or street names are proposed as part of the Lot B Access Project. Therefore, no certification of the municipal tax assessor is included in this Exhibit.

As documented on the Checklist, waivers are requested for this Exhibit.



125-66.L PHOTOGRAPHS

Exhibit 14 contains the Town's aerial photo from the GIS system, focused on the Project parcel.

Attached are photographs looking from and into the proposed location of the Lot B Access Project site. These photos were taken by Sarah Nicholson of Woodard & Curran on May 10, 2022.



MapsOnline



Photo 1: Looking into the site from the north.



Photo 2: Looking into the site from the west where access drive will connect to existing parking lot.





Photo 3: Looking east into the site from the edge of the parking lot.



Photo 4: Looking west into the site from Route 3.





Photo 5: Looking east from the site towards Route 3.



Photo 6: Looking south from the site. Light at edge of parking lot is visible.

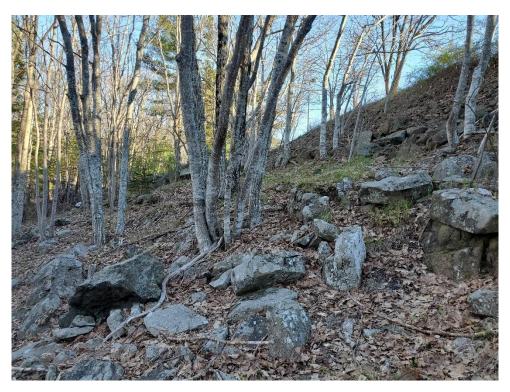




Photo 7: Looking west from the site.



Photo 8: Looking north from the site.





Photo 9: Looking east at existing entrance to be removed and replaced with a sidewalk.

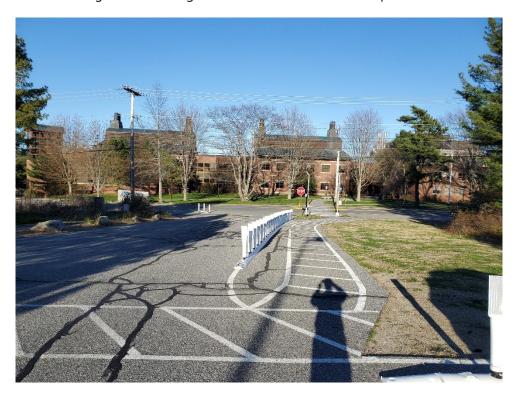


Photo 10: Looking north at existing entrance to be removed.





Photo 11: Looking west into the parking lot along existing entrance to be removed.

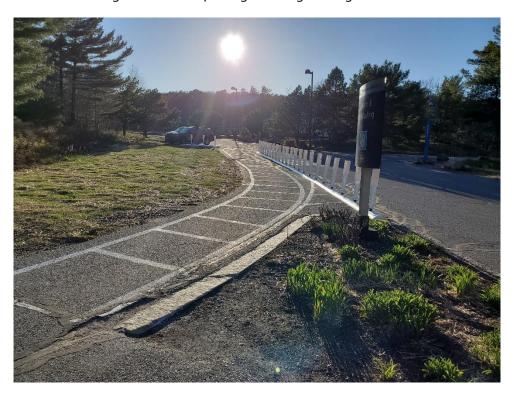


Photo 12: Looking south towards the existing entrance from lowest row of parking.





125-66.M SUBSURFACE WASTEWATER DISPOSAL

No subsurface wastewater disposal system is required for the Lot B Access Project. Therefore, no plans for such improvements are included in this Exhibit.



125-66.N GROUNDWATER

No groundwater will be extracted for the construction or operation of the proposed Lot B Access Project. Therefore, no details to that effect are included in this Exhibit.



125-66.0 **EROSION AND SEDIMENTATION**

The overall goal of the Erosion and Sedimentation Control Plan is to restrict the potential for erosion on the site and sedimentation of areas downhill of the site. A variety of erosion control techniques will be implemented to achieve this goal. These are illustrated in the design plan set included as Figure 9-3.

All measures will be implemented in accordance with the <u>Maine Erosion and Sedimentation Handbook for Construction: Best Management Practices</u>. All temporary measures will be removed after the areas are permanently stabilized. Permanent erosion control measures for the Project include vegetation and pavement.



125-66.P FIRE PROTECTION

The proposed access drive would be navigable by a fire truck, but in general because it leads to a parking lot, there is little need for fire protection.



125-66.Q SOLID WASTE AND HAZARDOUS WASTE OR MATERIAL

The proposed Project is a parking lot driveway and will not be a source of any type of solid or hazardous waste.



125-66.R BUILDING PLANS, ELEVATIONS AND INTERIOR USE

No buildings are proposed as part of the Project.



125-66.S LIGHTING

Pole lights are proposed along the new access drive and near the proposed sidewalk to the pedestrian crossing of Route 3.

The lighting pattern for each type of fixture is included in the attached information and illustrated on the Photometric Lighting Plan (Figure 21-1). Cut sheets for the proposed lighting fixtures are attached as Figure 21-2. All fixtures are full cut-off.

DDODOSED LIGHT DOLE FIXTURE

2 of 2



D-Series Size 0

LED Area Luminaire







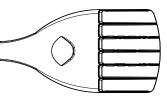


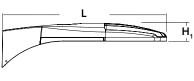


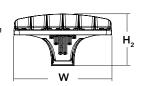
Specifications

0.95 ft² EPA: (.09 m²) 26" Length: (66.0 cm) 13" Width: (33.0 cm) 3" Height,: (7.62 cm)

Height,: (17.8 cm) Weight 16 lbs (max): (7.25 kg)







Catalog

Notes

Туре

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 400W metal halide with typical energy savings of 70% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX0 LED P6 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX0 LED												
Series	LEDs		Colort	emperature	Distrib	Distribution V		Voltage		Mounting		
DSX0 LED	Forward opt P1 P5 P2 P6 P3 P7 P4 Rotated opt P102 P12 P112 P13	cs	30K 40K 50K	3000 K 4000 K 5000 K	T1S T2S T2M T3S T3M T4M TFTM	Type I short (Automotive) Type II short Type II medium Type III short Type III medium Type IV medium Forward throw medium Type V very short ³	T5S T5M T5W BLC LCCO RCCO	Type V short ³ Type V medium ³ Type V wide ³ Backlight control ⁴ Left corner cutoff ⁴ Right corner cutoff ⁴	MVOLT XVOLT 1206 2086 2406 2776 3476 4806	(120V-277V) ^{5,6} (277V-480V) ^{7,8,9}	Shipped includ SPA RPA WBA SPUMBA RPUMBA Shipped separa KMA8 DDBXD U	Square pole mounting Round pole mounting ¹⁰ Wall bracket ³ Square pole universal mounting adaptor ¹¹ Round pole universal mounting adaptor ¹¹

Control options	Other options		Finish (required)			
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ^{13,14} PIRHN Network, high/low motion/ambient sensor ¹⁵ PER NEMA twist-lock receptacle only (control ordered separate) ¹⁶ PERS Five-pin receptacle only (control ordered separate) ^{16,17} PER7 Seven-pin receptacle only (leads exit fixture) (control ordered separate) ^{16,17} DMG 0-10V dimming extend out back of housing for external control (control ordered separate) ¹⁸	PIRH PIR1FC3V PIRH1FC3V FAO	High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 5fc ^{19,20} High/low, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 5fc ^{19,20} High/low, motion/ambient sensor, 8–15' mounting height, ambient sensor enabled at 1fc ^{19,20} High/low, motion/ambient sensor, 15–30' mounting height, ambient sensor enabled at 1fc ^{19,20} Field adjustable output ²¹	HS SF DF L90 R90 DDL HA BAA	House-side shield 22 Single fuse (120, 277, 347V) 6 Double fuse (208, 240, 480V) 6 Left rotated optics 2 Right rotated optics 2 Diffused drop lens 22 50°C ambient operations 1 Buy America(n) Act Compliant ped separately Bird spikes 23 External glare shield	DDBXD DBLXD DNAXD DWHXD DDBTXD DBLBXD DNATXD DWHGXD	Dark bronze Black Natural aluminum White Textured dark bronze Textured black Textured natural aluminum Textured white



D-Series Size 1

LED Area Luminaire









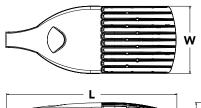


Specifications

Height H1: 7-1/2" (19.0 cm)

Height H2: 3-1/2"

Weight 27 lbs (max): (12.2 kg)







Notes

Туре

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD DSX1 LED

DSX1 LED			
Series	LEDs Color temperature	Distribution	Voltage Mounting
DSX1 LED	Forward optics P1 P4 P7 40K 4000 K P2 P5 P8 50K 5000 K P3 P6 P9 P8 Rotated optics P10 P12 P12 P112 P13 1.2	T1S Type I short (Automotive) T2S Type II short T3M Type II short T3M Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium	MVOLT 5 XVOLT (277V-480V) 6-7.8 120 9 208 9 240 9 277 9 347 9 480 9 Shipped included SPA Square pole mounting RPA Round pole mounting 10 WBA Wall bracket 3 SPUMBA Square pole universal mounting adaptor 11 RPUMBA Round pole universal mounting adaptor 9 Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) 12

Control options	Other options		Finish (required)			
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ¹³ PIRHN Network, high/low motion/ambient sensor ¹⁴ PER NEMA twist-lock receptacle only (controls ordered separate) ¹⁵ PER5 Five-pin receptacle only (controls ordered separate) ^{15,16} PER7 Seven-pin receptacle only (controls ordered separate) ^{15,16} DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ DS Dual switching ^{18,19,20}	PIR PIRH PIR1FC3V PIRH1FC3V FAO	High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 5fc ^{20,21} High/low, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 5fc ^{20,21} High/low, motion/ambient sensor, 8-15' mounting height, ambient sensor enabled at 1fc ^{20,21} Bi-level, motion/ambient sensor, 15-30' mounting height, ambient sensor enabled at 1fc ^{20,21} Field adjustable output ^{20,21}	HS SF DF L90 R90 HA BAA	House-side shield ²³ Single fuse (120, 277, 347V) ⁹ Double fuse (208, 240, 480V) ⁹ Left rotated optics ² Right rotated optics ² 50°C ambient operations ¹ Buy America(n) Act Compliant ped separately Bird spikes ²⁴ External glare shield	DDBXD DBLXD DNAXD DWHXD DWHXD DDBTXD DBLBXD DNATXD DWHGXD	Dark bronze Black Natural aluminum White Textured dark bronze Textured black Textured natural aluminum Textured white



Ordering Information

Accessories

Ordered and shipped separately

DI I 127F 1.5 JU Photocell - SSL twist-lock (120-277V) 25 DLL347F 1.5 CUL JU Photocell - SSL twist-lock (347V) 25 DLL480F 1.5 CUL JU Photocell - SSL twist-lock (480V) 25

DSHORT SBK U Shorting cap 25

DSX1HS 30C U House-side shield for P1, P2, P3, P4 and P5²³ DSX1HS 40C U House-side shield for P6 and P7 23 House-side shield for P8, P9, P10, P11 and P12 23 DSX1HS 60C II

Square and round pole universal mounting bracket (specify finish) 26 PUMBA DDBXD U*

Mast arm mounting bracket adaptor (specify finish) $^{12}\,$ KMA8 DDBXD U

DSX1EGS (FINISH) U External glare shield

For more control options, visit DTL and ROAM online.

NOTES

- HA not available with P4, P5, P6, P7, P9 and P13. P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available Not available with HS.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
- XVOLT works with any voltage between 277V and 480V.
 XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIRTFC3V, PIRH1FC3V.
- 9 Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF. 10 Suitable for mounting to round poles between 3.5" and 12" diameter.
- 11 Universal mounting broad poles between 3-4 and 12 universe.

 12 Universal mounting broad poles between 3-4 and 12 universe.

 13 Universal mounting broad poles between 3-4 and 12 universe.

 14 Universal mounting broad poles between 3-4 and 12 universe.

 15 Wast order fixture with SPA option. Must be ordered as a separate accessory, see Accessories information. For use with 2-3/8" diameter mast arm (not included).

 16 Wast order dwith PIRHN. Sensor cover available only in dark broracy, black, white and natural aluminum colors.

 17 Must be ordered with PIRHN. Sensor cover available only in dark broracy, black, white and natural aluminum colors.

- 15 Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.

 16 If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.

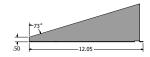
 17 DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- 18 Provides 50/50fixture operation via (2) independent drivers. Not available with PER, PERS, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5. 19 Requires (2) separately switched circuits with isolated neutrol.
- 20 Reference Controls Option Default settings table on page 4. 21 Reference Motion Sensor table on page 4 to see functionality.

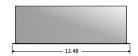
- 22 Not available with other dimming controls options.
 23 Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- 24 Must be ordered with fixture for factory pre-drilling.
 25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
- 26 For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8

Options

EGS - External Glare Shield

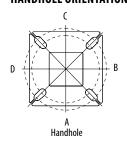


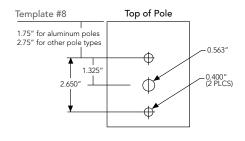




Drilling

HANDHOLE ORIENTATION





Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

		-		Ł.	_I_	*	+
Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4@90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

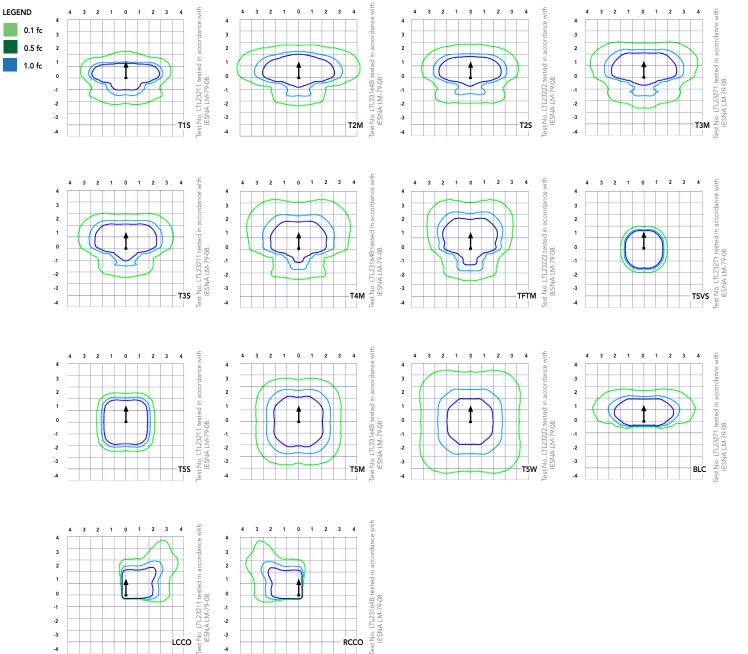
DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type	-		L.	<u></u>	Y	-1-
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

	Drilling Template		Minimum Acceptable Outside Pole Dimension									
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"					
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"					
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"					
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"					

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').



Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0.40°C (32-104°F).

Am	Ambient					
0°C	32°F	1.04				
5°C	41°F	1.04				
10°C	50°F	1.03				
15℃	50°F	1.02				
20°C	68°F	1.01				
25°C	77°F	1.00				
30°C	86°F	0.99				
35°C	95°F	0.98				
40°C	104°F	0.97				

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Ramp-down Time
Tillic
5 min
5 min

Electrical Load

							Curre	nt (A)		
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
Rotated Optics	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
(Requires L90 or R90)	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

		Controls Options		
Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PER5 or PER7	Twist-lock photocell recepticle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Edypse.	nLight Air rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive	Dist.			30K K, 70 CRI	`				40K K, 70 CRI	`		50K (5000 K, 70 CRI)						
LED Count	Current	Package	Watts	Туре	Lumens	(3000 B	U U	G	LPW	Lumens	(4000 B	U U	G	LPW	Lumens	B	U	G	LPW
				T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M T3S	6,483 6,279	2	0	2	120 116	6,984 6,764	2	0	2	129 125	7,073 6,850	2	0	2	131 127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
30	530	P1	54W	TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
30	330	- ''	J444	T5VS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				T5S T5M	6,728	3	0	1	125 124	7,248	3	0	1	134 134	7,340	3	0	2	136 136
				T5W	6,711 6,667	3	0	2	123	7,229 7,182	3	0	2	133	7,321 7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCC0	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				T1S T2S	8,249 8,240	2	0	2	118 118	8,886 8,877	2	0	2	127 127	8,999 8,989	2	0	2	129 128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M TETM	8,083	2	0	2	115 118	8,708	2	0	2	124 127	8,818	2	0	2	126 129
30	700	P2	70W	TFTM T5VS	8,257 8,588	3	0	0	123	8,896 9,252	3	0	0	132	9,008 9,369	3	0	0	134
				TSS	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				T5M	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				T5W	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC LCCO	6,770 5,038	1	0	2	97 72	7,293 5,427	1	0	2	104 78	7,386 5,496	1	0	2	106 79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
			102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M T3S	11,708 11,339	2	0	2	115 111	12,613 12,215	3	0	2	124 120	12,773 12,370	3	0	3	125 121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
30	1050	P3		TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
30				T5VS T5S	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				T5M	12,150 12,119	3	0	2	119 119	13,089 13,056	4	0	2	128 128	13,254 13,221	4	0	2	130
				T5W	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCC0	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO T1S	7,121 13,435	3	0	3	70 107	7,671 14,473	3	0	3	75 116	7,768 14,657	3	0	3	76 117
			125W	T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M T4M	13,457	2	0	2	108	14,497	2	0	3	116	14,681	2	0	3	117
				T4M TFTM	13,165 13,449	2	0	3	105	14,182 14,488	2	0	3	113 116	14,362 14,672	2	0	3	115 117
30	1250	P4		T5VS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				TSS	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				T5M T5W	13,963 13,872	4	0	3	112 111	15,042 14,944	4	0	3	120 120	15,233 15,133	4	0	3	122 121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				TIS	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S T2M	14,664 14,739	3	0	3	106 107	15,797 15,878	3	0	3	114 115	15,997 16,079	3	0	3	116 117
				T3S	14,739	3	0	3	107	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
30	1400	P5	138W	TFTM T5VS	14,695	4	0	3	106	15,830	3	0	3	115 119	16,030	3	0	3	116
				TSS	15,283 15,295	3	0	1	111	16,464 16,477	4	0	1	119	16,672 16,686	4	0	1	121 121
				T5M	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				T5W	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO RCCO	8,965 8,965	1	0	3	65 65	9,657 9,657	1	0	3	70 70	9,780 9,780	1	0	3	71
				ncco	0,703		U	J	0.0	7,00/		U	ر	70	7,700		U	J	71



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward O	ptics																			
LED Count	Drive	Power	System	Dist.	30K (3000 K, 70 CRI)							40K K, 70 CRI)		50K (5000 K, 70 CRI)					
LLD Count	Current	Package	Watts	Туре	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	Lumens	В	U	G	LPW	
				T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118	
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118	
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119	
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115	
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118	
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116	
40	1250	D.	163111	TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118	
40	1250	P6	163W	T5VS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123	
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123	
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123	
				T5W	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122	
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97	
				LCC0	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72	
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72	
				T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115	
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114	
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115	
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111	
			183W	T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115	
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112	
40	1400	P7		TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115	
40	1400	F/		T5VS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119	
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119	
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119	
				T5W	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118	
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94	
				LCC0	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70	
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70	
			207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119	
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118	
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119	
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115	
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119	
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116	
60	1050	P8		TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119	
				T5VS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123	
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123	
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123	
				T5W	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122	
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97	
				LCC0	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72	
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72	
				T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116	
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116	
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116	
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113	
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116	
				T4M TFTM	25,061 25,602	3	0	4	104 106	26,997 27,580	3	0	4	112 114	27,339 27,929	3	0	4	113 116	
60	1250	P9	241W	T5VS	25,602	5	0	1	110	28,684	5	0	1	119	27,929	5	0	1	121	
																			_	
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121	
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120	
				T5W	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120	
				BLC LCCO	20,990	2	0	3	87 65	22,612	2	0	3	94 70	22,898	2	0	3	95 71	
					15,619		-			16,825					17,038		0			
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	U	4	71	



Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Op	Rotated Optics																				
LED Court	Drive	Power	System	Dist.		30K 40K (3000 K, 70 CRI) (4000 K, 70 CRI)									50K (5000 K, 70 CRI)						
LED Count	Current	Package	Watts	Туре	Lumens	(3000 B	U	G	LPW	Lumens	(4000 B	U	G	LPW	Lumens	(3000 B	U	G	LPW		
				T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134		
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133		
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136		
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131		
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136		
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133		
60	530	P10	106W	TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137		
				TSVS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138		
				T5S T5M	13,260 13,256	3	0	2	125 125	14,284 14,281	3 4	0	2	135 135	14,465 14,462	3	0	2	136 136		
				T5W	13,137	4	0	3	123	14,153	4	0	3	134	14,402	4	0	3	135		
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112		
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80		
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80		
				T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132		
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131		
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133		
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129		
			137W	T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133		
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131		
60	700	P11		TFTM T5VS	16,857	4	0	1	123 124	18,159	4	0	1	133 133	18,389	4	0	1	134 135		
				T5S	16,975 16,832	4	0	1	124	18,287 18,133	4	0	2	132	18,518 18,362	4	0	2	134		
				T5M	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134		
				T5W	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133		
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110		
				LCC0	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79		
				RCC0	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79		
		P12	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121		
	1050			T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120		
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123		
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119		
				T3M T4M	23,263 22,824	5	0	5	112 110	25,061 24,588	5	0	5	121 119	25,378	5	0	4	123 120		
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	24,899 25,543	5	0	5	123		
60				T5VS	23,579	5	0	1	114	25,223	5	0	1	123	25,722	5	0	1	123		
				TSS	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123		
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123		
				T5W	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122		
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101		
				LCC0	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72		
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72		
				T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120		
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119		
				T2M	25,710	5	0	5	111	27,696	5	0	5	120	28,047	5	0	5	121 117		
				T3S T3M	24,862 25,695	5	0	5	108 111	26,783 27,680	5	0	5	116 120	27,122 28,031	5	0	5	121		
				T4M	25,210	5	0	5	109	27,080	5	0	5	118	27,502	5	0	5	119		
				TFTM	25,861	5	0	5	112	27,136	5	0	5	121	28,212	5	0	5	122		
60	1250	P13	231W	T5VS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123		
				T5S	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122		
				T5M	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122		
				T5W	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121		
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100		
				LCC0	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72		
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72		



FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metalcore circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programing and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-touse CLAIRITY app, nLight AIR equipped luminaries can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclypse. Additional information about nLight Air can be found here.

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/ QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C

Specifications subject to change without notice.





EXHIBIT 22 125-66.T SIGNS

The existing sign indicating the turn for Lot B will be relocated to indicate the new entrance.



125-66.U TRAFFIC IMPACT

JAX requested Diane Morabito, PE (Sewall) to evaluate the need for a Traffic Movement Permit (TMP) based on development at the campus over the last 10 years, including the Childcare Center being proposed for construction next year. This analysis indicated that a TMP is not necessary at this time. Diane shared her analysis with MDOT, and they have concurred with her findings. The DOT letter of concurrence is attached here as Figure 23-1.

The new driveway location for Lot B is approximately 250' north of the existing entrance. A new right turn lane for cars entering the parking lot will minimize any impact to traffic flow along Route 3.

The sight distance from the driveway to the north exceeds 600 feet, and to the south is approximately 350 feet. The posted speed limit of this section of Main Street is 35 mph. Maine DOT sight distance standards for this posted speed requires 305 ft of sight distance. Therefore, the proposed Lot B entrance provides satisfactory sight distance.

An Entrance Permit application has been submitted to MDOT for the new driveway location. Approval documentation will be provided to the Town when JAX receives it.



STATE OF MAINE DEPARTMENT OF TRANSPORTATION REGION 4 219 HOGAN ROAD BANGOR, MAINE 04401-5603

Bruce A. Van Note

May 4, 2022

Diane Morabito, P.E. 40 Forest Falls Drive, Suite 2 Yarmouth, ME 04096

RE: Traffic Evaluation Jackson Labs, Bar Harbor

Dear Diane,

Based on the information submitted on May 2nd, 2022 the MaineDOT concurs that Phase 1 and the recently built buildings at the Jackson Labs campus at 600 Main St, Bar Harbor will not require a MaineDOT Traffic Movement Permit (TMP). This includes the following existing buildings built in the last 10 years: a 45,000 S.F. Warehouse, a 3496 S.F. Chiller Plant, and a 31,000 SF Research Facility. Phase 1 buildout includes a housing project with 24 dwelling units, which is currently under construction, a 22,000 S.F. Complex Animal Experimentation Facility (CAEF) Research Facility, a 55 Student Daycare, and Parking Lot Improvements. Since the recently built buildings and Phase 1 buildout are not anticipated to result in an increase in peak hour trip generation of more than 100 trip ends over the existing trips, a TMP is not required.

If you have any questions, feel free to contact me at (207) 941-4500

Sincerely,

Alan Farrington, P.E. Region Traffic Engineer

cc: File



125-66.V TECHNICAL AND FINANCIAL CAPACITY

The total budget for the Lot B Access Project is \$2,500,000. This budget includes the cost of design, permitting, construction, and other associated costs. The estimated of construction cost alone is \$2,000,000. A letter from the JAX CFO documenting their capacity to fund this Project is attached as Figure 24-1.

This Project has been designed by Barton & Loguidice. Neither a contractor nor a construction manager has been selected yet for this Project. Resumes for the key professionals working on the design can be provided if requested.



Douglas W. Abbott, CPA

Chief Financial Officer 207.288.6045 t | 207.228-5812 m doug.abbott@jax.org

April 8, 2022

Maria Eggett, Environmental Specialist Maine Department of Environmental Protection 106 Hogan Rd # 6 Bangor, ME 04401

Re: The Jackson Laboratory Lot B Entrance DEP Minor Amendment Application

Dear Ms. Eggett:

I, Douglas W. Abbott, in my capacity as Chief Financial Officer and authorized to legally represent The Jackson Laboratory, approve the funds of up to \$2.5 million for the new Parking Lot B Entrance Modifications Project to be located at Parking Lot B on the western side of Route 3 at The Jackson Laboratory's Bar Harbor Campus.

This budget includes the cost of design, permitting, building construction and other associated costs. The estimated cost of the site construction is \$2,000,000. Funding for this project is being made available from treasury cash.

Sincerely,

Douglas W. Abbott Chief Financial Officer



125-66.W BUSINESS OPERATIONS

Operations within existing buildings will not change because of construction of the proposed Project, and operation of the proposed Project will not create significant toxic or noxious matter, vibrations, odor, noise, heat, glare, air pollution, gasses and fumes, waste, dirt, fly ash, dust, smoke, or other objectionable or offensive effects.

The hours of operation and the number of employees at the Lab will remain unchanged by the proposed Project.



125-66.X MINING

The Project is not a proposed gravel extraction or mining operation. Therefore, no details are included in this Exhibit.